United States Department of Agriculture

Service Center Modernization Initiative Information Technology Blueprint

Improving Service to Agriculture and Rural America

December 2000

FOREWORD

The $55 billion in farm, conservation, and rural development services delivered in FY2000 by the USDA Service Center Agencies (Farm Service Agency, Natural Resources Conservation Service, and Rural Development Mission Area) are crucial to:

1) *Maintaining a viable agricultural production base,*
2) *Protecting our environment, and*
3) *Helping rural America grow and prosper with the rest of our great nation.*

The program delivery system that provides these services is severely stressed. Since 1993, program funding levels have increased by 78% with many newly legislated programs added. At the same time, staff resources have decreased by over 22%. Meanwhile, although significant progress has been made in providing technology tools to enhance productivity; major investments are still required to fully incorporate modern technologies so that these three Agencies can maintain current program delivery, respond to legislative mandates and provide services with the increased responsiveness, quality, and efficiency that customers deserve and expect.

The following document presents the compelling case for continuing these investments and provides a clear "Blueprint" for how the Service Center Agencies will be able to meet the service delivery challenges of the twenty-first century.

This Blueprint Plan was developed through a collaborative partnership between the USDA Office of the Chief Information Officer and the Service Center Agencies, and has been fully endorsed by the Administrators or Chiefs of these Agencies.

Submitted on behalf of the Partnership,

Joseph Leo
Chief Information Officer
USDA

December 1, 2000

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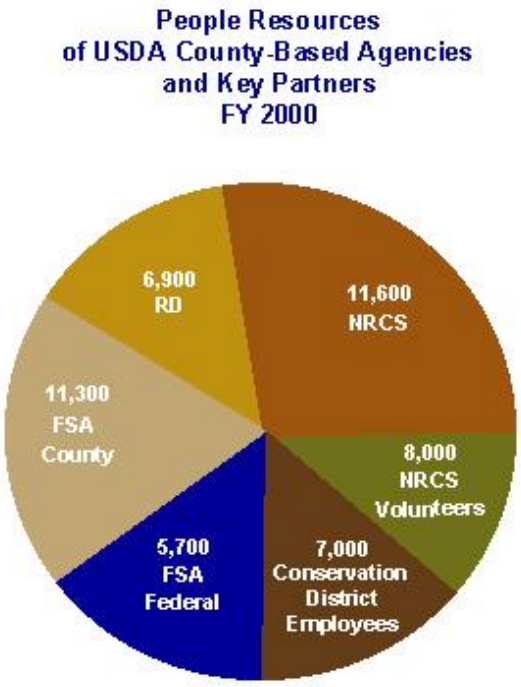
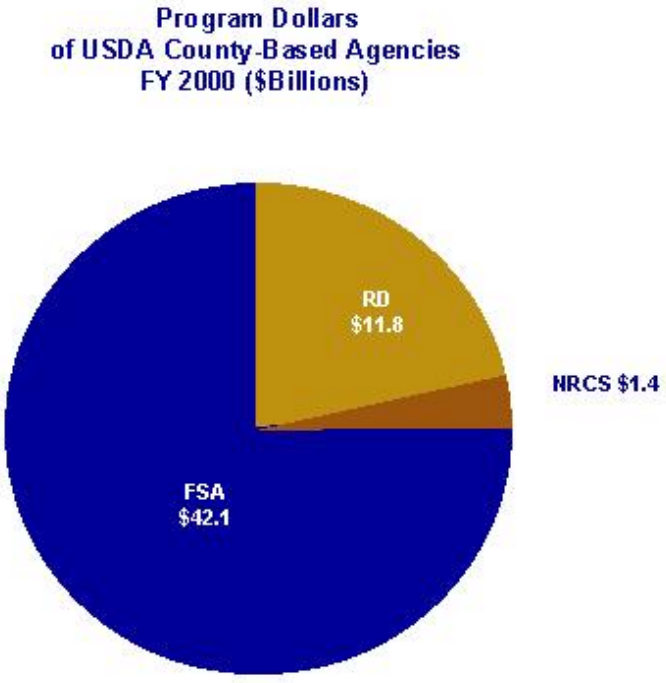
SERVICE CENTER MODERNIZATION INITIATIVE - INFORMATION TECHNOLOGY

The Service Center Modernization Initiative-Information Technology (SCMI-IT) is the IT portion of the USDA Service Center Modernization Initiative (SCMI). The modernization of outdated Service Center information technology is vital to the USDA mission and the ability of the Service Center Agencies and Agency Partners to help fulfill it. The ***Service Center Agencies*** of the USDA are the Farm Service Agency (FSA), the Natural Resources Conservation Service (NRCS), and the Rural Development Mission Area (RD). The ***Service Center Agency Partners*** include conservation districts, state conservation agencies, farmer-elected committees, county extension agents, co-operatives, lenders, realtors, growers associations, and agriculture industry groups.

Over the past several years, the USDA has co-located FSA, NRCS and RD at the county level by establishing Service Centers to deliver USDA programs and services from a single location. Approximately ***2,600 Service Centers*** are now in place. The Service Center Agencies are staffed by ***35,500 employees***, equal to nearly ***one-third of the entire USDA workforce***. The Service Centers are assisted by 8,000 conservation volunteers, as well as by over 7,000 local soil and water conservation district employees, most of whom are co-located with NRCS (see chart below). In addition, thousands of ordinary citizens volunteer their time to serve on local boards and committees assisting in the delivery of these programs. As the "face" of the USDA to many Americans, the Service Centers deliver the majority of Agency programs, and were the conduit for an estimated ***$55 billion*** in farm, conservation and rural development services in FY2000 (see chart below). The continued effective and efficient delivery of these services now, and into the future, depends significantly on the capabilities of Service Center information technology.





CHALLENGES IN SERVICE DELIVERY AND THE NEED FOR IT MODERNIZATION

The Service Centers are the focal point for USDA customer service, however, current information technology capabilities are inadequate and fall short of meeting current and future business and legislative requirements.

- ***Outdated and incompatible IT systems***

  When the SCMI-IT initiative started in 1996/1997, IT equipment and systems at the Service Centers consisted largely of ***1980's and early 1990's technology*** that had been only minimally enhanced. These legacy IT systems were acquired and developed independently by each of the three Service Center Agencies prior to co-location. Co-location was required by law, but the necessary funding to ensure all IT systems could be properly integrated under a common IT infrastructure was not provided. Instead, Service Centers had to rely on an ad-hoc assortment of separate IT systems that could often not be connected. Telephone systems were separated, Internet access was limited, multiple word-processing and spreadsheet software packages were in use, and data transmission capabilities were limited. This ***"stove-piping"*** of systems prohibited information sharing among Agencies, employees and customers, and had a direct impact on the service that employees could deliver to customers.

  From FY1997-FY2000, significant progress was made in addressing portions of the "stove-pipe" technology issue. A shared telecommunications system was installed; over 35,000 identical workstations with common office automation software and over 7,500 shareable printers were acquired, as were a small number of other devices such as digital cameras, scanners and Global Positioning Systems (GPS) units. In addition, a legacy system connectivity solution was acquired for FSA.

  However, most of the Agencies' legacy systems still continue to operate on outdated or older technologies. Under SCMI-IT, the Agencies are moving towards a common server technology that will maximize information sharing and meet customer demands for the use of modern business practices (e.g., Internet, Geographical Information Systems).

- ***High vulnerability to cyber-attacks***

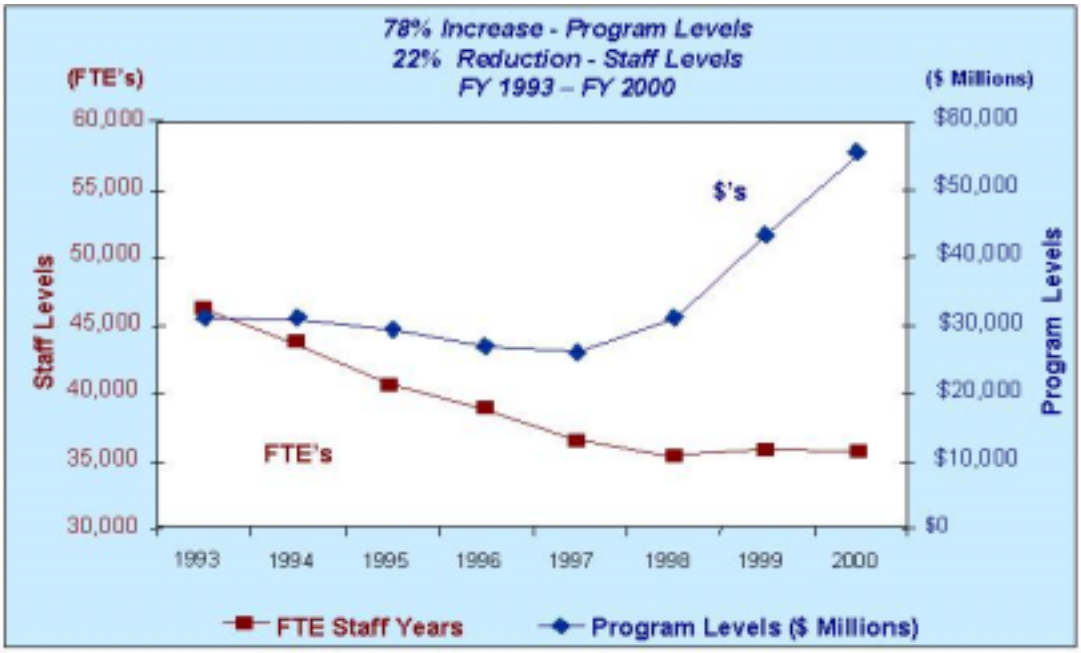
  It is imperative that Service Center IT systems be replaced with more modern, securable systems. The USDA Cyber-Security Officer estimates that approximately ***70% of successful system intrusions at the USDA have occurred through the more vulnerable networks of the Service Center Agencies***. In September 2000, Congress also gave the USDA a grade of "F" for its information and systems security capabilities. A serious threat exists to the continuity of program operations, and to the privacy of customer data.

- ***Increasing workloads, decreasing staff, and diminishing IT capabilities***

  The following chart illustrates the heart of the IT and service delivery challenge being faced by the Service Center Agencies. Since 1993, an ongoing and increasingly wide gap between program demands and staff resources has developed while, at the same time, supporting IT capabilities have not kept a similar pace.

  - ***78% increase in program funding levels –*** Total annual program dollars managed by the Service Center Agencies increased from $31 billion in 1993 to $55 billion in 2000. Increases per Agency were 87% for FSA, 59% for RD, and 41% for NRCS. Also, a number of new programs have been added such as the Market Loss Assistance Program, and others that have placed new demands on the Service Center Agencies.

  - ***22% reduction in staff levels*** – Total staff resources declined from 46,027 in 1993, to 35,555 in 2000. Reductions absorbed per Agency were 27% for RD, 24% for FSA, and 16% for NRCS.



♦ ***Legislative mandates for efficiencies and Web-enabled services***

The mandate for modernization was launched with the ***Department of Agriculture Reorganization Act of 1994*** which requires the USDA to consolidate field offices and manage information technology in a manner which enhances productivity, customer service, and information sharing. The ***Clinger-Cohen Act of 1996*** followed requiring the USDA to leverage IT to maximize the efficiency of program delivery and better manage IT implementation risk and reporting. The ***Government Paperwork Elimination Act (GPEA) of 1998*** then required the USDA to move to a self-service, Web-enabled environment by 2003 in order to reduce time-consuming and often duplicative paper work. More recently, the ***Freedom to E-File Act of 2000*** requires basic Web access to USDA forms and applications in December 2000 and Web capabilities supporting the receipt of electronic customer data by June 2002. A fully supported SCMI-IT effort will enable the Service Center Agencies to fulfill the requirements noted above, including the electronic integration of co-located Agencies, the management of IT implementation risks and reporting, and the delivery of Web-enabled services.

♦ ***Impacts of trying to do more with less***

Without ready access to quality "tools," ***the service delivery capabilities of the Service Center Agencies are significantly constrained***. Also, with about 50% of the IT workforce eligible to retire within five (5) years, ***IT staff recruitment and retention challenges***, already complicated by out-of-date technology and increasing workloads, will only increase. Management is also increasingly concerned about the ***potential negative impact on employees*** of increased program demands and decreased resources – a situation believed by managers and employees alike to exacerbate employee morale, stress, health, absenteeism, and work-place incidents.

Against this backdrop, the need to acquire and integrate new, productivity-enhancing technology is especially urgent. If current levels of program delivery are to be maintained, much less improved, the Service Centers will require substantial improvements to their current information technologies. Continually increasing program demand can only be achieved through substantial use of the new technology.

> ***Employee Support:*** *"Getting the CCE equipment to the field as quickly as possible is critical for our employees to provide the services to our customers that they need and deserve"* ***-- FSA Union Official***

THE SERVICE CENTER MODERNIZATION INITIATIVE (SCMI)

As one of the cornerstone efforts of the Service Center Modernization Initiative (SCMI), SCMI-IT will enable USDA to meet its commitment to transform field operations. The aims of SCMI-IT are based on the SCMI mission, vision, and goals below, and the SCMI priority efforts further below.

- **SCMI MISSION**
  USDA Service Centers, in partnership with individuals and communities, will deliver agricultural, rural development and natural resource programs efficiently, and with a quality of service that exceeds customer expectations.

- **SCMI VISION**
  We will reach out and deliver programs to customers in a manner that is responsive to their needs, treating each with dignity and respect.

- **SCMI GOALS**
  - ***One-Stop Shopping*:** Establish capabilities for Service Centers employees to provide seamless and exceptional service for agriculture, rural development, and conservation programs.
  - ***Quality Customer Service*:** Exceed customer expectations by providing fair, equitable, courteous, high-quality, professional, and personalized service in a timely and non-discriminatory manner.
  - ***Cost Reduction*:** Reduce administrative and program delivery costs by implementing common information systems and administrative resources across the three partner Agencies.
  - ***Partnerships:*** Partner with individuals, conservation districts, communities, government agencies, and private organizations to maximize resources, achieve common goals, and protect privacy.

SCMI PRIORITY EFFORTS

Business Process Reengineering/Improvement (BPR/I): BPR/I efforts target barriers between the co-located, but "stove-piped" Service Center operations of FSA, NRCS, and RD. ***Services are currently delivered independently by each Agency to an overlapping set of customers.*** Staff are not fully equipped with the processes and supporting IT systems to effectively share information among co-located Agencies, or with customers about programs of other Agencies, co-located or not. Example: Customer contact data is maintained separately and not shared between Service Center Agencies because their respective IT systems are incompatible. Such practices make one-stop shopping extremely difficult and waste employee, customer and partner time.

In response, the USDA is implementing process improvements in four major areas: ***Community Development, Lending, Conservation, and Risk Management***. As high payback improvements are identified, process improvement and technology investments are focused accordingly. Information sharing is a major BPR/I priority. Related projects include developing an information management system for all Service Center Agencies, databases for common customers and land units, and Web-based tools to meet all legislative and customer requirements.

Co-Location: Establishes a ***single USDA presence*** at 2,600 Service Centers to enable one-stop customer service. As of September 2000, all 2,600 had been established.

Administrative Consolidation: Streamlines Service Center operations by consolidating the administrative support structures of NRCS, FSA and RD. One of the most critical needs is to establish a single IT support staff across all three Agencies.

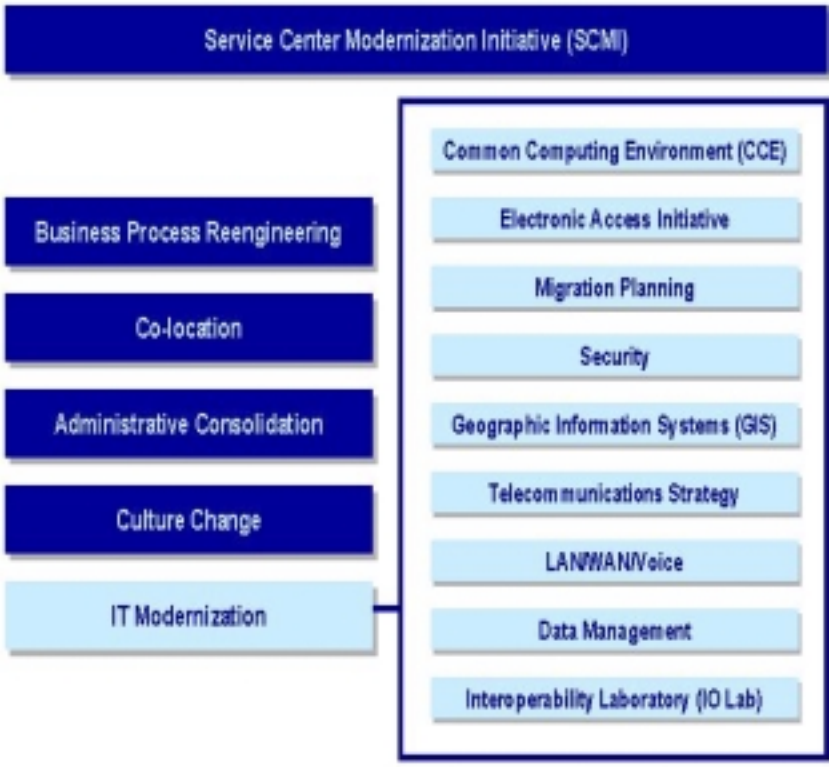
Culture Change: Given the significant cultural changes the other SCMI efforts will bring, it is important to also address the ***human side of change***. To do this, the USDA is listening to employees, customers and partners by using feedback from employee and customer surveys, and involving partners in shaping SCMI goals.

Information Technology Modernization: The SCMI-IT component is described throughout the document and is a significant enabler of each SCMI effort.

THE NINE SCMI-IT PROJECTS

SCMI-IT consists of nine inter-dependent projects coordinated by the interagency Information Technology Working Group (ITWG). The ITWG operates under the general direction of the USDA CIO, and in consultation with Agency program and administrative leaders. In some cases, the SCMI-IT has been recognized by one of its most visible components -- the Common Computing Environment Project (CCE). However, SCMI-IT encompasses eight other critical IT projects which are also essential for successful Service Center Modernization. All nine projects must be pursued together in order to effectively bolster Service Center program delivery capabilities. Otherwise, significant technological gaps will continue to impede service delivery and information sharing.

- ***Common Computing Environment (CCE):*** This project is providing Service Centers with common and updated information systems by acquiring and deploying the servers, workstations, printers, software, and other tools necessary to maximize program and customer service, as well as other administrative efficiencies. Outcomes include maintaining current program delivery, employee access to email, the Internet, and software productivity tools (e.g., word processing) which will save both employee and customer time. CCE will also provide the technical infrastructure necessary for the use of Geographical Information Systems (GIS) in the Service Centers.



- ***Electronic Access Initiative (EAI):*** EAI will enable the USDA to move beyond simple Internet access to using the World Wide Web as a viable means of doing business. EAI will provide the hardware and software infrastructure and common approaches to support Web-site development, self-service transactions, electronic procurement, Web access to information on non-co-located Agencies, and distribution and receipt of electronic forms, applications, and news flashes. Customers will be able to access program information and apply for services over the Internet 24-hours a day, seven (7) days a week.

- ***Migration Planning:*** This project is responsible for transferring legacy systems into the new common computing environment so that mission-critical applications and data may be used without interruption. The effort is especially critical since the Service Centers rely on IT to help disburse billions of dollars in payments and benefits to USDA customers. The project will help Service Center Agency staff transition from managing three sets of stove-pipe applications to partner agency applications that share data and processes in a common infrastructure.

> ***FSA Pilot Site Success:*** *"Using my CCE workstation and Internet access to the FSA Homepage, I can get new program information and instructions the same day they are released and be implementing these new programs at least two weeks before the paper process delivers the material to me"* ***– FSA County Director***

- ***Security:*** The purpose of this project is to protect the privacy, integrity, accessibility, and reliability of USDA and customer information, and to prevent unauthorized access to USDA systems and networks. It will also help the USDA meet legislative security mandates and maintain customer and partner confidence in the security and privacy capabilities of the USDA.

  The success of the Security project will also help the USDA improve its Congressional grade from an "F" (September 2000) to an "A" for information and systems security.

- ***Geographical Information Systems (GIS):*** GIS will provide the Service Centers with access to the data, applications and tools needed to manipulate and analyze digital imagery and maps. GIS will replace an archaic system of manual updating and tracking on hard-copy aerial photographs.

  GIS will provide Service Center Agencies with the ability to improve service to customers in many ways. Determinations of field measurements, classifications and uses will be more accurate and timely. Customers will ultimately be able to view USDA information on their land over the Internet, make operational decisions based on more detailed and accurate information, and conduct business with USDA without visiting the office each time.

  Current GIS projects dealing with crop reporting, farm record updates, farm plan preparation, conservation planning, and program compliance, are projected to provide significant efficiencies and service improvements. Pilot testing has shown as much as ***80-85% labor savings*** in many routine tasks. One early application, the Customer Service Toolkit, is already providing ***$12-15 million in annual benefits*** from software that enables the use of GIS capabilities with common desktop software.

- ***Telecommunications Strategy:*** This project plans, designs, and manages the telecommunications infrastructure of the Service Centers so that current and future business requirements can be met. The Service Center Agencies' existing telecommunications capacity, or bandwidth, is not sufficient to meet the growing customer, partner, business, and legislative demands for electronic access.

  This project will enable the Agencies to improve network capacity and performance in support of customer demands and the requirements of legislative mandates.

- ***LAN/WAN/Voice:*** LAN/WAN/Voice is installing and operating a common, nationwide data and voice communications infrastructure to enable more prompt and responsive internal and customer service. This project is nearing completion with 2,522 of 2,600 Service Center installations completed as of September 2000.

- ***Data Management:*** This project is establishing a master plan to manage all Service Center data and ensure compliance with physical database standards. Through data standards, warehouses, etc., the project will improve the ease of use and timely access to compatible, consistent, and quality data for customers, employees, and partners.

- ***Interoperability Laboratory (IO Lab):*** It is critical that the many hardware, software, and communications solutions introduced into the USDA IT environment are not only compatible with one another, but are also compliant with established criteria and standards. To this end, IO Lab is responsible for compatibility testing, standards development, standards monitoring, performance measurement, capacity planning, training, and technical assistance.

Conservation Partner Pilot Site Success: *"The CCE digital camera, workstation and Internet access were key to us getting a state grant to clean up an unauthorized dumpsite that was causing water quality problems in the county"* ***– Local Conservation District Manager***

HOW SCMI-IT WILL BE ACHIEVED

Given the scale and impact of SCMI-IT, careful planning and coordination has been, and will continue to be, essential to success. Current plans are based on a sound approach of planning, testing, validation, and implementation. Interagency teams have been working together since early FY1997 to plan and implement technology improvements in conjunction with the reengineering/improvement of business processes. The approach has centered on the following:

1) *Gathering business requirements and technology information, and then developing technology solutions to support these requirements.*
2) *Testing various solutions in a laboratory environment*
3) *Field testing solutions at nine pilot sites*
4) *Evaluating results and adopting solutions into a common technical architecture*
5) *Acquiring and implementing improvements as funds have become available*

Extensive documentation of business requirements, technical evaluations, etc., also exists to support the direction of SCMI-IT. Building on this solid foundation, the leaders of the IT Modernization effort have focused their energies on the following key areas:

- ***Establishing Partnerships and Structure***

  The success of SCMI-IT relies heavily on the working partnerships that have developed among the three ***Service Center Agencies*** and the ***Office of the Chief Information Officer (OCIO)*** over the course of this effort. IT activities are coordinated through the ***Information Technology Working Group (ITWG)*** under the direction of the USDA CIO who works in close collaboration with program and administrative leaders in each of the Service Center Agencies.

  The ITWG structure includes the CIO's of the three Agencies, who are each charged with executive leadership for three of the nine project teams. The ITWG also includes the team leaders of the nine projects, representatives of employee organizations, and other partner representatives. The Executive Officer of the ***National Food and Agriculture Council*** represents the BPR/I program interests. A senior executive from the OCIO chairs the ITWG. Agency program leadership is involved in setting priorities and directives for the effort, and the IT organizations of the three Agencies are fully involved with providing the internal leadership and staff.

  Each team is responsible to the OCIO for coordination and collaboration with other project teams. Project team leaders interact regularly via telephone, email, weekly ITWG conference calls, and quarterly conferences.

- ***Creating a Common Framework***

  The nine project teams are developing and organizing their efforts according to a common framework using an IT project management tool and methodology acclaimed by the Gartner Group. With this common framework in place, the ITWG has enhanced its project plans and is in the process of integrating the ***nine project plans into a single, integrated program plan***.

  This plan will enable the ITWG, the CIO, and the Agencies to comprehensively monitor IT Modernization activities, and reduce project risk by promoting best practices, and by highlighting project dependencies, risks and milestones.

> ***RD Pilot Site Success:*** *"We are saving ¾ of a staff year plus mailing costs and getting an average of $25,000 more for sales on foreclosed houses by using the CCE digital cameras, workstation and Internet access to get bid information out to a broader number of prospective buyers"* ***– RD County Director***

- ***Managing Risks and Dependencies***
  The IT Modernization teams are documenting risks and dependencies that would impact the schedule, outcomes and cost of the projects. With the risks identified, the ITWG will then put in to place contingency plans to address risks before they impact projects, and to manage the effects of any risks that are experienced.

  The major risks identified by the ITWG include ***training, coordination activities, funding changes, changes to requirements, unforeseen demand for services, legislated program changes, and heightened security demands***. With the dependencies identified, the team leaders can recognize how their progress and actions are intertwined with those of other projects, and the OCIO can adjust plans to manage inter-dependencies. Major dependencies identified by the ITWG include ***stakeholder support, funding, configuration and requirements management, and staff resources***.

- ***Pursuing Priority Activities***
  A key outcome of the IT planning activities described is that the SCMI-IT managers can now identify, update and communicate overall technology priorities. The priority activities being pursued include the following:

  Building comprehensive security plans; deploying network and web servers; improving the telecommunications infrastructure; completing architecture decisions; implementing BPR/I projects on a nationwide basis; and supporting targeted implementations identified by the Agencies (this includes digital cameras, Global Positioning System (GPS) equipment, and Geographical Information systems (GIS) software and data), and providing employee training in the use of the new IT tools.

BENEFITS OF MODERNIZING SERVICE CENTER INFORMATION TECHNOLOGY

SCMI-IT has charted a course for the Service Center Agencies to overcome the technological challenges and to pursue the improvement opportunities that lie ahead. Full implementation will help transform the USDA's program delivery capabilities, as described below:

Economic Benefits

The USDA recognizes its accountability to the Congress and public, and has conducted the necessary cost-benefit analyses to ensure that IT Modernization is economically sound. Below are conservative benefit estimates from the FY1998 SCMI Business Case and GIS pilot projects:

- ***40% total annual return on investment*** over the 10-year life span of the program
- ***$5.5 billion in calculated dollar value benefits*** from labor hours saved and improved operational efficiencies, based on an investment of $1.9 billion
- ***$773 million in dollar value savings to customers*** from faster payments, reduced travel costs, reduced application time for programs, and improved access to information
- ***$169 million in annual GIS cost savings***
- ***$12-15 million in other annual GIS benefits***
- ***GIS labor savings of 80-85% for routine tasks***

Note: actual benefits will depend upon resource availability to change business processes to take full advantage of the technology

> ***NRCS Pilot Site Success:*** *"Using GIS, I have time to offer my customers more options on conservation filter strip designs because I can generate them in about 15 minutes compared with four hours using the old methods"* ***– NRCS Soil Conservationist***

Labor savings benefits will help the Service Center Agencies to offset personnel losses over the past few years, and to devote more staff time to direct customer service and to reaching the under-served.

Customer Service and Program Delivery Benefits

Customer service quality and satisfaction will also be significantly enhanced since employees will be able to spend ***less time wrestling with manual, paper-based tasks***, and more time assisting customers. Customers will no longer have to provide duplicative information for every new program for which they apply. ***Anytime, anywhere, secure Internet access*** to USDA program information and services for customers, employees, partners, and the public will be available. ***Faster processing*** of payments and benefits, and the option of electronic payment deposit will be expanded. ***True one-stop shopping service*** will be made possible for customers of the 2,600 Service Centers, whether offered in-person, by phone, or on-line for a wide variety of programs, regardless of which Agencies are present at a particular office location. Even at an office where only one Agency is present, the customer will be able to obtain information on all Service Center programs, assistance in contacting the appropriate service representatives, and other basic assistance.

SCMI-IT will also enable higher quality program delivery by ***eliminating time-consuming duplicative tasks***, and by equipping the Service Center Agencies with the ability to ***share customer, program, technical and administrative information***, regardless of the Agency that they represent. The enhanced functionality and scalability of the new IT systems and process will empower the USDA **to *respond more quickly to changing business and legislative requirements***.

Productivity and Operations Benefits

Modernizing the Service Center IT environment will significantly improve employee productivity and enhance Service Center Operations. By working for the first time with a common set of tools across a common computing environment, ***employees will be adequately equipped*** to deliver USDA programs and services to their customers more efficiently and effectively than ever before. The deployment of common e-mail, office automation software, secure Internet access information sharing capabilities, telecommunications, and business applications will: **1)** provide Service Center employees with a greater sense of control amidst steadily increasing workloads, **2)** eliminate the need to support multiple versions of software for incompatible computers, and **3)** enable information to be readily shared at and among different Center locations.

More cost-effective and efficient Service Center operations will also result. BPR/I improvements will be supportable by updated technology. The three Agencies will be released from the costly burden of maintaining three incompatible infrastructures of outdated networks and systems. Service Centers will be better able to manage their high levels of service demand while coping with reduced staff, operations resources and budget dollars. Likewise, the Agencies will be better able to attract and retain skilled IT employees by offering an up-to-date IT environment.

Legislative Benefits

SCMI-IT will position the USDA to fulfill its many technology-related mandates. Activities are already in progress to meet the December 2000 and June 2002 ***Freedom to E-File Act*** deadlines for Web services. Planning activities for the ***Government Paperwork Elimination Act (GPEA)*** were completed in October 2000 and all nine projects address its goals, particularly in enabling related SCMI-BPR/I efforts. SCMI-IT's integrated project management approach and tools, and its goals to realize IT implementation efficiencies, directly support both the ***Clinger-Cohen Act*** and the ***Department of Agriculture Reorganization Act***.

> ***FSA Pilot Site Success:*** *"My CCE GPS unit enabled me to lay out and calculate acreage on five irregularly shaped CRP sign up fields in two hours compared to the three days it would have taken the old way"* ***– FSA County Employee***

EXPECTED SCMI-IT COSTS

Based on the priority activities established through the planning process, the total costs for SCMI-IT for the FY1996–2002 implementation period are as follows:

(All dollar figures are in MILLIONS)

CATEGORY	FY 1996-2000	FY 2001 (est.)	FY 2002 (est.)	Total FY 1996-2002
Telecommunications and LAN/WAN/Voice	$128.0	$9.2	$25.0	$162.2
CCE Capital Investments	$103.7	$69.3	$82.9	$255.9
Other: Architecture, Data Mgmt., Security, Training, Support	$25.7	$12.0	$15.1	$52.8
TOTAL	$257.4	$90.5	$123.0	$470.9

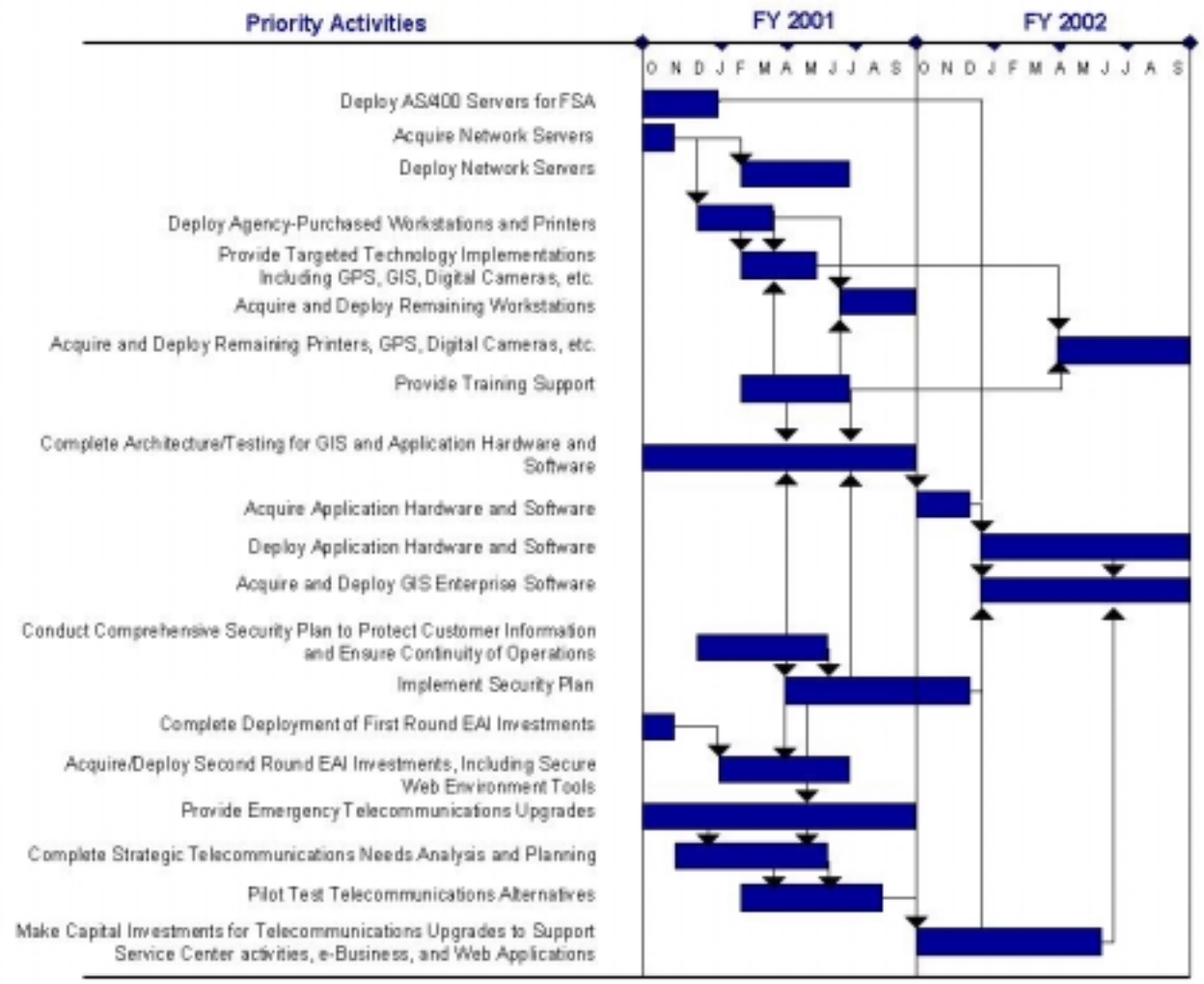
The above includes: planning, capital costs, testing and training costs, but does not include personnel, data, operations and BPR/I costs. Reference to FY2002 estimates indicate remaining investment needs beyond FY2001 and does not necessarily represent a budget request for that year

To date, significant progress has been made. SCMI-IT has implemented portions of IT Modernization, as funding has become available through ongoing Agency budgets and the use of special Y2K funds. The LAN/WAN/Voice project was targeted for early investment to lay a foundation for subsequent IT improvements, including the CCE project. In addition, a small number of printers, GPS units and digital cameras were deployed on a pilot basis. A legacy system connectivity server for FSA was also acquired and is being deployed.

Now that early reengineering projects are ready to be deployed, and that e-legislation is shifting Agencies to Web-based applications, SCMI-IT is moving to acquire the network and application servers needed to support GIS, e-business, and related activities.

Congressional appropriations (FY2001) to the OCIO of special CCE funding are now available to support rollout of these new tools. An FY2002 appropriation will be required to complete the CCE by September 30, 2002 and a continuing "refresher" fund will need to be provided in future years to keep the technology current.

The priorities for the remaining two years of CCE infrastructure implementation are as follows:



THE NEED FOR CONTINUED IMPROVEMENTS

The need to continue modernizing Service Center IT capabilities is compelling. Delays in the funding or execution of improvements will expose the USDA to the following risks: *Loss of capabilities due to increasing workloads, decreasing staff and archaic work tools; loss of private customer, partner, employee, or government data due to cyber attacks; subsequent loss of public confidence; failure to reap the IT-dependent benefits of co-location, BPR/I and administrative efficiencies and, subsequent inability to comply with legislative mandates.*

If the Service Center Agencies are to maintain or improve the current level of service delivery, it will be critical to implement SCMI-IT quickly and comprehensively. The launching point for a significant transformation has begun through the early successes of CCE and GIS. Service Center program delivery and productivity are just beginning to be revolutionized. SCMI-IT has the partnerships, project plans, and management tools necessary to move IT Modernization forward. With the continued support of the Service Center Agencies, the Administration, and the Congress, SCMI-IT is poised to enable the delivery of higher quality, more timely and responsive, and more economical service to the customers and partners of USDA.

The SCMI-IT initial capital investments will be completed in the FY2002. However, in order to keep the new shared technology infrastructure up to date, some provisions will need to be made for annual "refresher" investments in future years.

United States Department of Agriculture

Service Center Modernization Initiative

INFORMATION TECHNOLOGY

BLUEPRINT

DECEMBER 2000

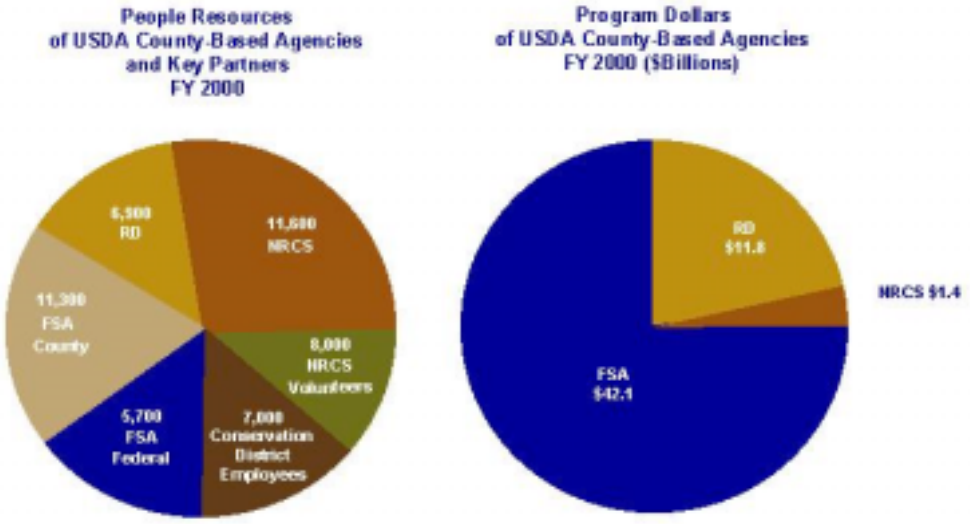
SERVICE CENTER MODERNIZATION INITIATIVE – INFORMATION TECHNOLOGY

Service Center Modernization Initiative-Information Technology (SCMI-IT) is the IT portion of the overall USDA Modernization effort known as the Service Center Modernization Initiative. The modernization of outdated Service Center (SC) information technology is essential to the USDA mission and its fulfillment through the Service Center Agencies and Agency Partners. The ***Service Center Agencies*** of the USDA are the Farm Service Agency (FSA), the Natural Resources Conservation Service (NRCS), and the Rural Development Mission Area (RD). The Service Center ***Agency Partners*** include soil and water conservation districts, state conservation agencies, cooperatives, farmer elected committees, county extension agents, lenders, realtors, growers associations and agriculture industry groups. The USDA's Service Center Agencies support a broad spectrum of ***key customers*** with important programs and services:

- FSA supports ***American farmers and ranchers*** through commodity programs, conservation, operating and emergency loans, domestic and overseas food assistance, and disaster programs, in order to improve the economic stability of agriculture and the environment.
- NRCS delivers technical and financial assistance programs and builds partnerships with ***citizens, businesses, farmers, ranchers, state and local government, various associations and other interest groups*** in order to help them conserve, improve, and sustain our natural resources and environment.
- RD delivers housing, utilities, and business services to ***rural communities*** by funding housing projects, providing loans and grants for rural infrastructure projects, and providing technical and financial assistance to rural businesses and cooperatives.

Over the past several years, the USDA's Service Centers have been established at county field offices to deliver FSA, NRCS and RD programs and services from a single location. Prior to 1994, many of the field offices of the three partner Agencies were not co-located. There are now approximately ***2,600 Service Centers*** engaged in delivering an array of services and benefits. The 35,500 employees of the Service Center Agencies make up nearly one-third of the USDA's entire workforce. The conservation mission is also assisted by 8,000 volunteers, as well as by over 7,000 local soil and water conservation district employees, most of whom are co-located with NRCS (see chart below). In addition, thousands of ordinary citizens volunteer their time to serve on local boards and committees assisting in the delivery of these programs.

As the "face" of the USDA to many Americans, the Service Centers deliver the majority of Agency programs and were the conduit for an estimated ***$55 billion*** in farm, conservation and rural development services in FY2000 (see per Agency breakdown in chart below). The effective and efficient delivery of these services depends heavily on the capability of Service Center information technology.



LEGISLATIVE REQUIREMENTS

The mandate for modernization was launched with the ***Department of Agriculture Reorganization Act of 1994***. The Reorganization Act requires the USDA to do the following:

- Consolidate field offices and share resources in order to reduce personnel and duplicative overhead expenses
- Procure and leverage computer systems in a manner that enhances efficiency, productivity, customer service and sharing of information between Agencies

In response to this legislation, the USDA established the Service Center Modernization Initiative (SCMI) in FY1996. The SCMI conducted business process reengineering/improvement studies in FSA, NRCS and RD, and a Benefit Cost Analysis (BCA) to identify the highest priorities for transforming field office program delivery. Based on these analyses, the SCMI initiated five major modernization efforts, including SCMI-IT. The other four major efforts are the co-location of FSA, NRCS and RD field offices, the reengineering/improvement of business processes, the sharing of administrative functions, and culture change.

SCMI-IT is especially critical because realizing the benefits of co-location, shared administration and reengineered processes will be heavily dependent upon the implementation of much more up-to-date IT capabilities in the Service Centers. Once it is completely implemented, SCMI-IT will enable field offices to go beyond simply being physically co-located. By being electronically connected and integrated for the first time, field offices will be properly equipped to reduce business process costs and share resources and information across Agencies, as the Reorganization Act requires.

Following the Department of Agriculture Reorganization Act, in 1996 the ***Clinger-Cohen Act*** was signed into law. The Clinger-Cohen Act requires the USDA to do the following:

- *Maximize the value of IT acquisitions to improve the efficiency of its programs*
- *Maintain the capability of providing timely information on the progress of IT investments*
- *Assess and manage IT acquisition risks more effectively*

The USDA has responded to this legislation by strengthening its commitment to Service Center Modernization, and continuing to move IT Modernization forward. SCMI-IT's integrated project management approach, detailed later in this document, is a good example of how the USDA is meeting Clinger-Cohen requirements regarding program delivery, status reporting, and risk management. By implementing all components of SCMI-IT, the Service Center Agencies will be in a position to achieve the IT-based efficiency improvements required by the Clinger-Cohen Act.

The ***Freedom to E-File Act of 2000*** and the ***Government Paperwork Elimination Act (GPEA) of 1998*** provide an added impetus and urgency to SCMI-IT efforts, as noted below.

- According to the Freedom to E-File Act, FSA, NRCS and RD must offer a basic set of Internet access services, including a common Web-site by December 18, 2000. The Service Center Agencies must also deliver a significantly enhanced set of web-based services capable of supporting the submission of data by customers by June 20, 2002.

- According to GPEA, appropriate business processes should be moved to a self-service, Web-enabled platform by October 2003, with the goal of eliminating paperwork and related processes that are needlessly labor-intensive and time-consuming.

In order to meet Freedom to E-File, GPEA and other requirements, all nine SCMI-IT projects must be supported together to enable the delivery of broader Web-based services. Although SCMI-IT's Common Computing Environment and Electronic Access Initiative projects are at the forefront of providing the infrastructure to meet these legislative requirements, they will continue to depend on adequate funding and the progress of SCMI-IT's seven other projects in order to ensure USDA success.

THE CHALLENGE OF DELIVERING QUALITY SERVICE WITHOUT QUALITY TOOLS

The USDA has made progress in fulfilling these legislative requirements and the related guidelines of other oversight bodies, but the journey has not been without considerable challenge.

Integrating the IT and communications infrastructures of three newly co-located Agencies in 2,600 offices across the country is a complex undertaking, even without the added complication of out-dated equipment.

While the benefits of this office consolidation effort were readily apparent on paper, positive results were difficult to achieve in the field. This was primarily because Service Centers received the directive to co-locate, but did not receive any new Congressional funding to establish a ***shared IT infrastructure***.

When the Reorganization Act of 1994 mandated field office consolidation, an assortment of 1980's and early 1990's technology was assembled from the three partner Agencies. This ad hoc approach almost guaranteed that the IT components of each Service Center would not only be unique, but largely incompatible within Service Centers and between Service Centers.

The Need for Modern Business Tools

Rodriguez is employed at a Service Center where, until recently, most employees used non-networked or "dumb" computer terminals. He was frustrated that his office did not have more up-to-date IT capabilities, and was often embarrassed to admit to his customers that he could not send program information via email or receive email messages from them. More often than not, Rodriguez found himself taking his work home after-hours to use his own personal computer which was connected to a local Internet service provider. The new computer workstation upgrade of Rodriguez's Service Center has helped him begin to better serve his customers while he waits for even better tools.*

** Not his real name*

Even with the progress made to date in providing some technology improvements such as new compatible workstations and printers, much of the Agencies' technology is still based on the older "stove-piped" systems that are not suitable for a shared information and Web-enabled environment.

It is still quite common to see even some of the better-equipped Service Centers using antiquated equipment such as "green screen" workstations and dot matrix printers. Agencies also still cannot share much of their data on the old legacy systems.

The reality is that there are other critical government "assets" resting upon this older "stove-pipe" equipment, including the efficiency, productivity, and quality of customer service that Service Center employees can deliver. These "assets" will not be significantly enhanced apart from a comprehensive IT Modernization effort leading to a totally shared technology infrastructure.

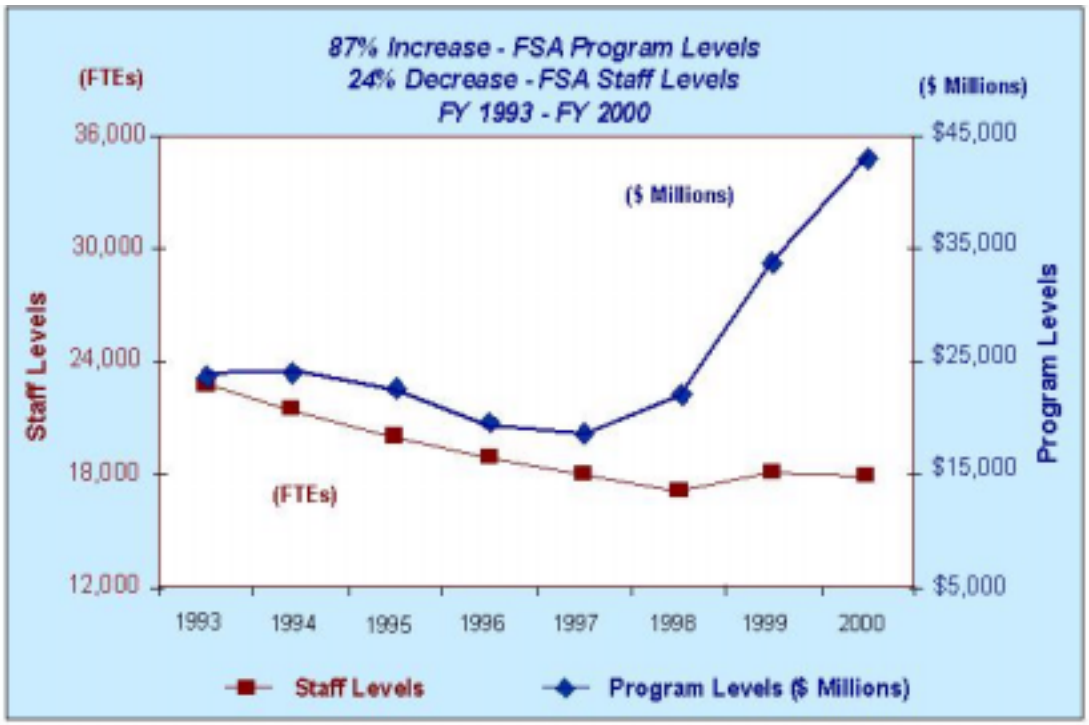
THE CHALLENGE OF INCREASING WORKLOADS AND DECREASING STAFF

At the same time the Service Centers have been contending with outdated technology, they have also faced significant increases in workload demands combined with decreases in staff. In particular, the Service Center Agencies experienced the following from 1993 to 2000:

- ***78% increase in program funding levels***
  This is based on the increase from $31 billion in 1993, to $55 billion in 2000, in total annual program dollars that the three Service Center Agencies are responsible for managing. Increases per Agency were 87% for FSA, 59% for RD, and 41% for NRCS. Also, a number of new programs have been added such as the Market Loss Assistance Program and others, that have placed new demands on understaffed Service Center Agencies.

- ***22% reduction in staff levels***
  This is based on the decrease from 46,027 staff in FY1993, to 35,555 in FY2000. Approximate staff reductions absorbed per Agency were 27% for RD, 24% for FSA, and 16% for NRCS.

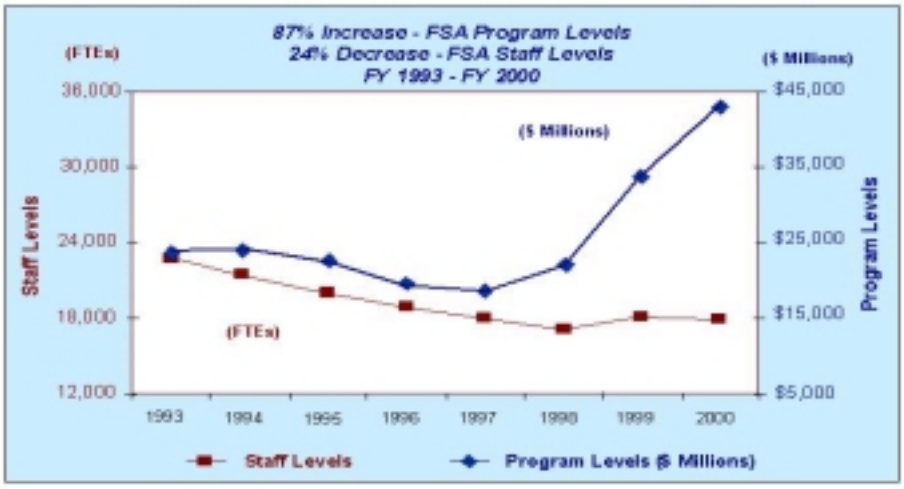
As the chart illustrates, the ongoing and increasingly wide gap between program demands and staff resources is the heart of the service delivery challenge faced by the Service Center Agencies. The upper trend line depicts the 78% increase in program demand levels. The lower trend line shows the 22% decrease in staff. A shrinking but dedicated workforce has worked hard to maintain quality services during this timeframe. However, without up-to-date technology productivity-enhancing tools and training in the use of these tools, maintaining this high quality of service is in jeopardy.

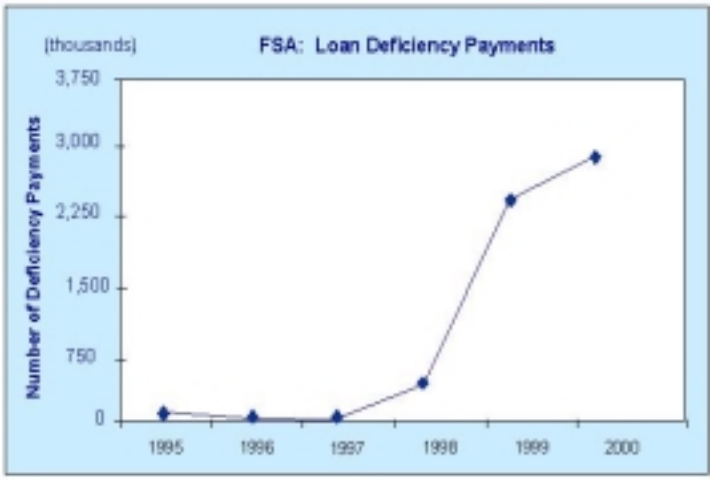


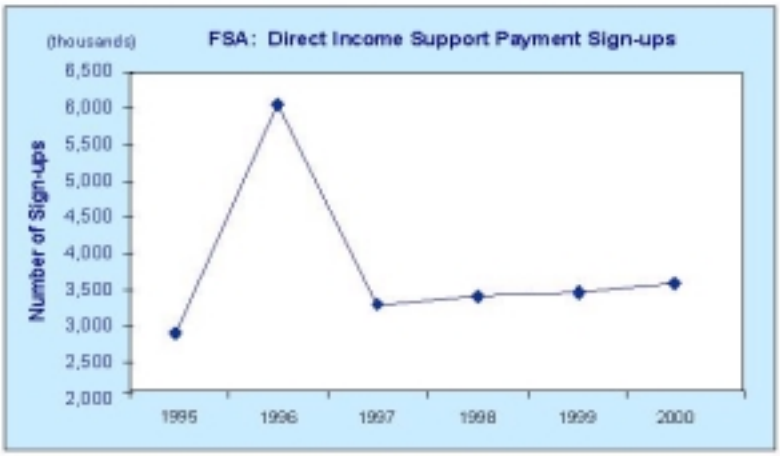
♦ **FARM SERVICE AGENCY**

As reflected in the charts below, FSA has experienced an ***87% increase in program funding levels*** and a ***24% reduction in staff*** since 1993. At the same time, FSA's FY2000 workload transaction volumes have increased substantially over FY1995 levels.

- Loan Deficiency Payment levels ***increased over 5,000%*** or 51 times 1995 levels
- Direct Loans to FSA customers ***increased 41%*** over 1995 levels
- Sign-ups for Direct Income Support Payments ***increased 22%*** over 1995 and have risen steadily over the last three years.



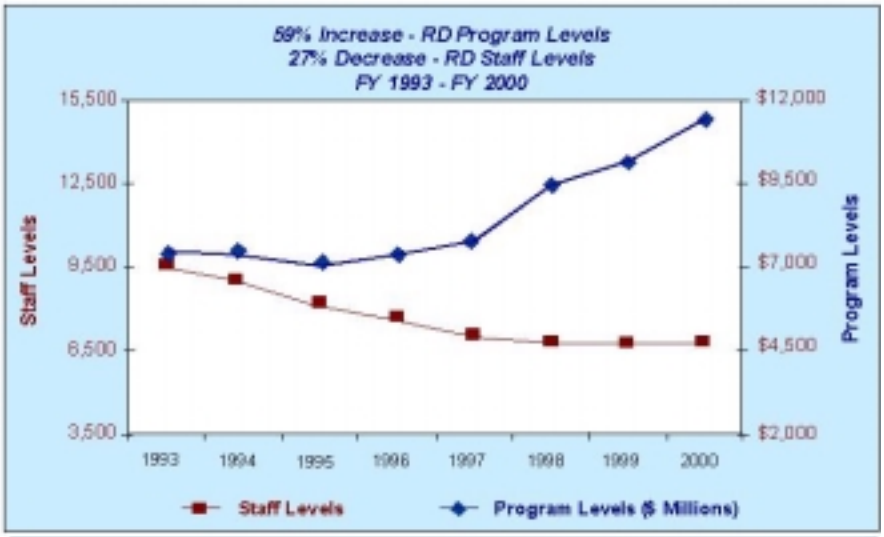


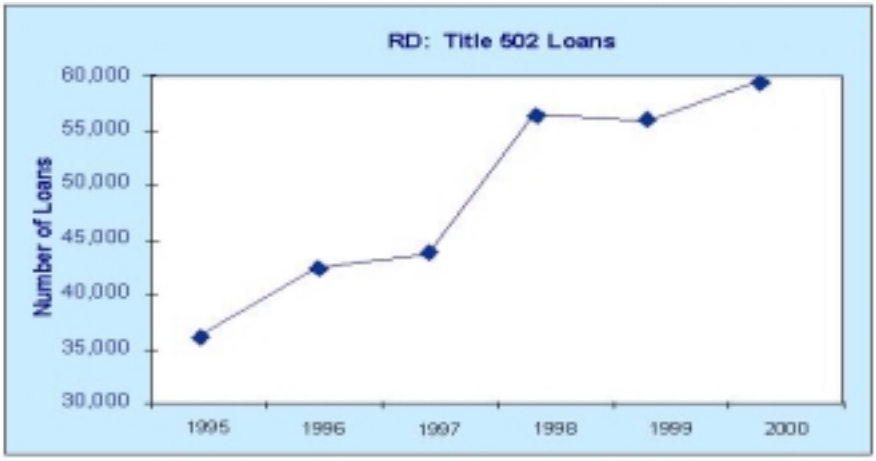


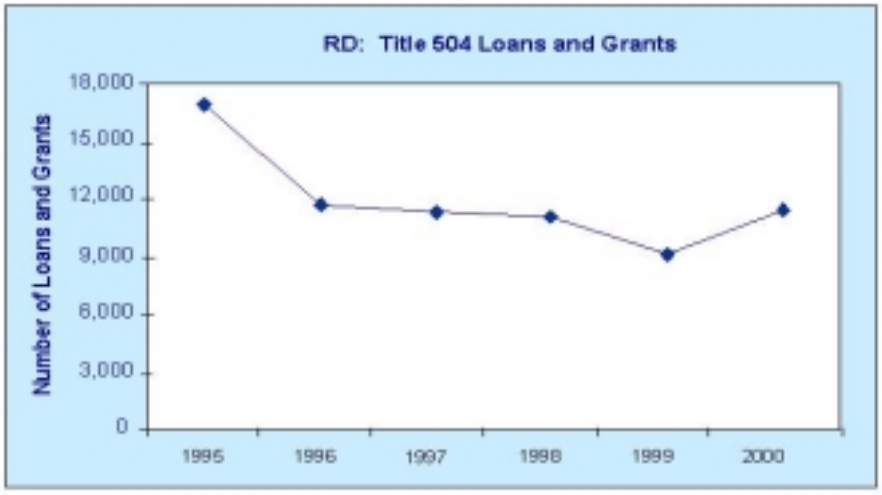
- **RURAL DEVELOPMENT MISSION AREA**

  RD has experienced a ***59% increase in program funding levels*** and a ***27% reduction in staff*** since 1993 as shown in the accompanying chart and workload transaction volume changes in FY2000 were as follows:

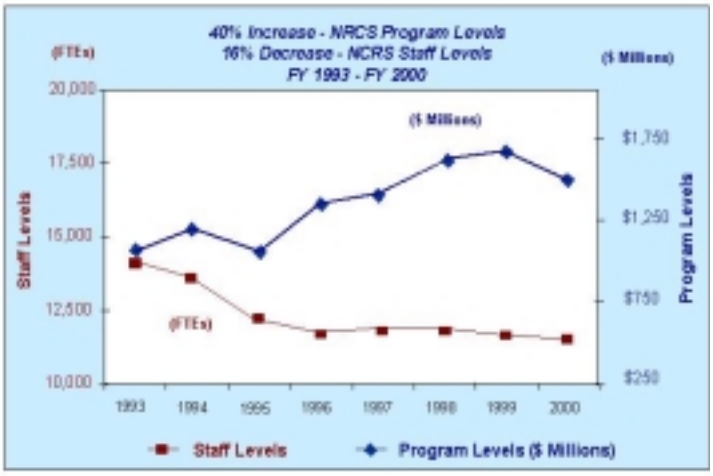
  - Title 502 Loans for single family units ***increased 65%*** over 1995 (Direct and Guaranteed Loans combined)
  - Title 504 Loans and Grants, although down from 1993, ***increased 25%*** over 1999.







- **NATURAL RESOURCES CONSERVATION SERVICE**
  NRCS experienced ***staff reductions of 16%*** and ***program funding level increases of 41%*** from 1993 to 2000. From 1993 to 1999, NRCS contract and easement transactions ***increased over 373%***, equal to five (5) times the FY1995 levels (this excludes PL-566 transactions).



THE IMPACT OF TRYING TO DO MORE WITH LESS

A number of consequences have become apparent as IT capabilities and staff resources have diminished while workloads have continued to increase:

- Without ready access to quality "tools," the ability of the Service Center workforce to satisfy increasing customer, partner and legislative demands for more cost-effective, faster, and higher-quality services is significantly constrained. This is especially true in cases in which the workload is cyclical or seasonal, and employees must work against large spikes in service demand.

- About 50% of the IT workforce will be eligible to retire within five (5) years. With this expected exodus, the Agencies face a major challenge in IT staff recruitment and retention, which is further complicated by outdated technology and increasing workloads. Salary issues aside, it is simply not compelling to offer someone an IT career path that begins on nearly obsolete equipment, and may not lead to regular opportunities for skill upgrades on more up-to-date equipment.

- Agency and Department managers are also increasingly concerned about the impact on employees of increased program demands and decreased resources – a situation believed by managers and employees alike to exacerbate employee morale, stress, health, absenteeism, and work-place incidents. Employees have been shouldering a heavy program load while anxiously awaiting new technology and tools to help them do their jobs.

Against this backdrop, the need to acquire and harness integrated, up-to-date, productivity-enhancing technology has become especially urgent, and is particularly vital if the delivery of quality programs is to be sustained in the future. SCMI-IT will enable the Service Center Agencies to meet their technology-related legislative obligations, and concurrently equip their employees with the quality tools needed to deliver the quality programs that USDA customer's demand.

THE SERVICE CENTER MODERNIZATION INITIATIVE (SCMI)

The purpose of SCMI-IT is not about technology – it is about serving customers – which is also at the heart of the overall SCMI. Under the National Food and Agriculture Council (NFAC) and at the direction of the Secretary and Deputy Secretary, the USDA has remained committed to transforming its field operations during the recent increase in service demand. As the Secretary has stated, "our first responsibility is effective program delivery to our customers." Building on this customer focus, the SCMI developed the following mission and vision to guide modernization efforts.

- **SCMI MISSION**
  USDA Service Centers, in partnership with individuals and communities will deliver agricultural, rural development and natural resource programs efficiently, and with a quality of service that exceeds customer expectations.

- **SCMI VISION**
  We will reach out and deliver programs to customers in a manner that is responsive to their needs, treating each with fairness, dignity, and respect.

- **SCMI GOALS**
  In order to achieve the mission and vision, the partner Agencies have established the following four goals. The key objectives of each goal are also summarized below, particularly as they relate to SCMI-IT.

  - **One-Stop Shopping**
    Establish "one-stop shopping" capabilities at USDA Service Centers where employees provide seamless and exceptional service regarding agriculture, rural development, and natural resource conservation programs

    Key Objectives
    - Develop an integrated source of customer, land and program information that can be shared within Service Centers and with customers
    - Develop the capabilities for Service Centers to deliver a basic level of customer service for all applicable USDA programs, even if a given partner Agency is not co-located
    - Co-locate FSA, NRCS and RD field offices and identify business process reengineering/improvement opportunities
    - Establish a common computing environment in all Service Centers with open, integrated information management systems and modern software applications

  - **Quality Customer Service**
    Exceed the expectations of customers by providing fair, equitable, courteous, high-quality, professional, and personalized service in a timely and nondiscriminatory manner

    Key Objectives
    - Reduce the amount of time required for customers to receive USDA benefits
    - Improve service by providing remote access to customers for all appropriate USDA program information, resources and related technology applications
    - Increase customer satisfaction, meet or exceed customer-defined standards for program delivery, and establish a customer-defined, service-quality feedback system
    - Identify opportunities to improve outreach to under-served areas and nontraditional customers, and integrate improved outreach efforts across all applicable programs

- **Cost Reduction**
  Reduce administrative and program delivery costs by implementing common information systems and administrative resources across the three partner Agencies in support of Service Center operations

  Key Objectives
  - Reduce the cost of database establishment and maintenance by sharing Agency resources for data entry and exchange
  - Reduce the cost of delivering programs by reengineering core business processes to maximize sharing and integration of partner Agency resources
  - Reduce Service Center administrative costs by reengineering administrative processes and functions

- **Partnerships**
  Improve existing and develop new partnerships with individuals, conservation districts and other organizations, communities, private organizations, and Government agencies to maximize use of limited resources, attain common goals and objectives, and protect the privacy of our customers

  Key Objectives
  - Expand ties with state, county, local, and private entities to expand information and services provided through USDA Service Centers
  - Provide an integrated source of partner information that can be shared within Service Centers and with customers

SCMI INITIATIVES

Based on the four primary goals above, the SCMI identified five areas on which to focus USDA Service Center Modernization efforts. These are summarized below:

♦ BUSINESS PROCESS REENGINEERING/IMPROVEMENT (BPR/I)

Current "as-is" Service Center operations can be described as a series of "stove-piped" units, with dedicated FSA, NRCS, and RD staff delivering important services independently to an overlapping set of customers. This arrangement results in cumbersome processes that wastes the time of employees, customers and partners.

It is not possible to deliver one-stop customer service in this environment. Customer information, such as names, addresses, and phone numbers, is maintained separately by each Agency and cannot be shared because their systems are not integrated. Likewise, although it would be extremely efficient to share up-to-date land information, the technological bridges are not currently in place.

In order to overcome such barriers, USDA has already implemented a number of BPR/I pilot projects for four major processes: ***Community Development, Lending, Conservation, and Risk Management.*** BPR/I activities are aimed at reducing customer burden, improving customer service, sharing common information, and revamping processes from an enterprise perspective. As BPR/I analyses identify high payback improvement areas, technology investments are focused accordingly.

Some of the specific Service Center BPR/I activities include:

- *Creating a repository of customer land and program information to increase information sharing between the Agencies and their partners*
- *Creating a Service Center information management system to share common customer and other information*
- *Developing Web-based lending, disaster reporting, and geospatial query capabilities*
- *Outreach to the under-served via mobile technologies*
- *Developing a combined administrative information system for the three Agencies*

♦ CO-LOCATION

The primary purpose of this effort is to provide a ***single USDA presence*** that provides efficient, high quality, one-stop customer service at approximately 2,600 Service Centers nationwide. Since December 1994, the USDA has reduced the total number of field office locations from over 3,700 to 2,600. This effort has essentially been completed as of September 2000. However, in order to capture the intended benefits of one-stop customer service through co-location, full implementation of SCMI-IT will be critical.

♦ ADMINISTRATIVE CONSOLIDATION

One of the major initiatives for ***streamlining the Service Center delivery structure*** has been to consolidate the administrative support structures of NRCS, FSA and RD. The USDA continues to work with Congress to gain approval for moving forward with this initiative. The most critical component of consolidation is the need to establish an IT support structure across all three Agencies to support the operation and maintenance of SCMI-IT shared technology.

♦ CULTURE CHANGE

IT Modernization, co-location, BPR/I and administrative consolidation all represent significant cultural changes. The USDA recognizes that managing the ***human side of change*** is also important, and has increased its outreach efforts to employees, customers and partners. In particular, customer service training has been provided to employees and customer surveys have been conducted so that this feedback will impact SC strategic planning and operations. In addition, efforts have been made to involve partners in shaping SCMI goals.

♦ IT MODERNIZATION

SCMI-IT is described throughout this document, and is a significant enabler of each of the other four SCMI efforts summarized below.

TECHNOLOGY CHALLENGES IN SERVICE DELIVERY

The Service Centers are the focal point of USDA customer service, however they face a dramatic shortfall in the IT capabilities necessary to support effective customer service. When the SCMI started in 1996/1997, the IT equipment and systems consist largely of 1980's and *early* 1990's technology that had received minimal enhancement. As noted earlier, these legacy IT systems were acquired independently and developed separately by each of the three partner Agencies prior to the co-location of their field offices. Most Service Centers had several separate IT systems that could not be connected or integrated.

Service Center employees were consequently ***not equipped to share data and resources*** in order to serve customers more efficiently and effectively. The jobs of Service Center employees are now further complicated by the burden of the concurrent 78% increase in program workload levels and the 22% reduction in staffing levels from 1993 to 2000 as cited earlier.

In parallel, ***information access demands*** have grown rapidly. Customer and partner demands for information sharing and access, anytime and anywhere, are higher than ever before. With the exponential growth of e-business, demands for the USDA to keep pace technologically are only expected to increase.

Keeping pace with technology is also particularly vital in the area of information and system security – the USDA's ability to keep customer, partner and government information private. Due to the continued use of older technology, the security of USDA information and systems is increasingly at risk as ***70% of cyber attacks have occurred in the county-based field office systems where most of the out-dated equipment resides***.

From FY1997-FY2000, significant progress has been made to address parts of the "stove-pipe" technology issue. A shared telecommunications system has been installed, over 35,000 identical workstations with common office automation software have been acquired, over 7,500 shareable printers have been acquired, as well as a small number of other devices such as digital cameras, scanners and Global Positioning Systems (GPS). In early FY2001, legacy connectivity servers for FSA and network services for all agency offices are being deployed.

However, ***most of the Agencies' legacy systems still run on the older technologies***, while the Agencies need to move toward a common server technology that will maximize information sharing and meet customer demands for the use of modern business practices (e.g., Internet, Geographical Information Systems). If current levels of Service Center program delivery are to be maintained, much less improved, the Service Centers will require substantial improvements in information technology.

A BLUEPRINT FOR THE FUTURE

SCMI-IT, working with program leaders, has designed a transformation blueprint that the Service Center Agencies can follow to overcome these challenges. The goal of SCMI-IT is to enable ***more timely, responsive and economical program and service delivery***, that is sustainable into the 21st century.

SCMI-IT has already set in motion a ***structured planning process*** and ***nine IT projects***. The initial results are very encouraging. Communications barriers between Agencies, customers, employees and partners are being eliminated through the implementation of a common computing environment. The positive effects have been especially noticeable where older equipment has been removed, and offices have been introduced to email and modern desktop and laptop computers. As a result, employee productivity has been enhanced, operations costs are being reduced, and customers are receiving better service.

SCMI-IT and its nine project teams are working hard to extend benefits like these more widely. By doing so, the Service Center Agencies will be able to transform their delivery and customer service capabilities, as highlighted in the future benefits below:

- ***Anytime, anywhere, secure access*** to program information and services for customers, employees, partners, and the public via the Internet
- ***Faster processing*** of payments and benefits, and the expansion of electronic payment deposit capabilities
- ***True one-stop service*** at each Service Center, offered in-person, by phone or on-line for a wide variety of programs, regardless of which Agencies are present in the office (even at an office where only one Agency is present, customers will be able to obtain information on all Service Center programs, assistance in contacting the appropriate service representatives, and other basic assistance)
- ***Higher quality program delivery*** by employees to customers as a result of new data sharing and geographic information system capabilities, and the elimination of time-consuming, duplicative, manual and paper-based tasks
- ***More cost-effective and efficient Service Center operations*** because streamlined business process improvements are enabled by updated technology
- ***Adequately equipped employees*** with access to the tools, business applications, and training they need to deliver value to USDA customers and partners (e.g., Internet access, email, standardized office automation software)

Voice of the Customer:
Email Access

On the benefits of email-enabled communication improvements at one Service Center, one customer's response went straight to the issue:

"farmers don't keep office hours"

And as the USDA employee assisting him said:

"…customers who live in other counties. . . . can email you and it saves them a lot of time. If they're up at midnight and think of something, they can send you an email. You go to the office in the morning, and can then respond to them quickly. They like that…"

THE APPROACH TO IT MODERNIZATION

In order to deliver on these commitments, the USDA has developed a logical approach. Current plans are based on a ***sound foundation of planning, testing, validation, and implementation***. Interagency teams have been working together since early FY1997 to plan and implement technology improvements in conjunction with the reengineering/improvement of business processes. The approach has centered on the following:

1) *Gathering business requirements and technology information and developing technology solutions to support the requirements.*
2) *Testing various solutions in a laboratory environment*
3) *Field testing solutions at nine pilot sites*
4) *Evaluating results and adopting solutions into a common technical architecture*
5) *Acquiring and implementing improvements as funds have become available*

Extensive documentation of business requirements, technical evaluations, etc., also exists to support the direction of SCMI-IT.

♦ ***Agency IT Coordination***

To ensure coordination and cooperation across Agencies, a working partnership called the Information Technology Working Group (ITWG) has been established between the Office of the Chief Information Officer (OCIO) and the CIO's of FSA, NRCS, and RD. The ITWG is chaired by the OCIO, and coordinates all IT activities and plans.

♦ ***Employees and Partners***

To ensure that the needs and issues of employees and Service Center Agencies are addressed, the ITWG includes representatives from employee unions, associations, and conservation partner groups.

♦ ***Business Unit and SCMI Coordination***

To ensure that SCMI-IT is fully responsive in meeting the Agencies' business requirements, the ITWG and the USDA CIO communicate regularly with Agency program and administrative leaders, and involve them in priority setting, budgeting, and key decisions.

Additionally, the Executive Director of the National Food and Agriculture Council, who coordinates the SCMI BPR/I initiatives, is on the ITWG working closely with the program managers in their Agencies to bring those perspectives to the SCMI-IT. An interagency IT Board, chaired by the USDA CIO with representation from the Agency program and administrative leaders, will also be implemented to more formally ensure close collaboration on priorities and direction.

♦ ***Project Plans and Teams***

Project plans have been developed for nine (9) inter-dependent IT projects. Nine teams, comprised of members from FSA, NRCS, RD and Agency Partners, have developed plans and begun work on these efforts.

♦ ***Integrated Project Management Tools***

A single, integrated project plan for the entire SCMI-IT effort has been developed by nine project teams. This "single plan approach" has resulted in a *common framework* that will enable critical inter-dependencies between projects to be effectively tracked and managed. The nine project plans are being integrated in accordance with an industry-acclaimed IT implementation methodology developed by a "Big Five" management consulting firm.

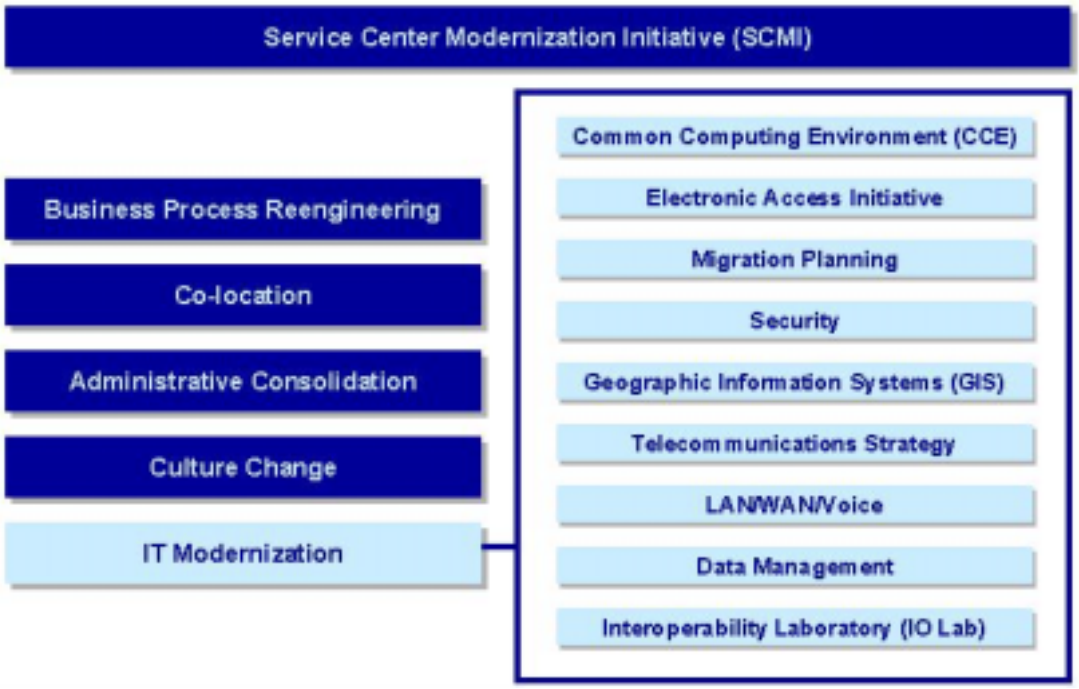
Additional project management details are provided in the section entitled **"How SCMI-IT Will Be Achieved."**.

THE NINE SCMI-IT PROJECTS

SCMI-IT is comprised of nine integrated and inter-dependent projects coordinated by the Information Technology Working Group (ITWG). SCMI-IT has in some instances been recognized by or referred to as the Common Computing Environment Project (CCE), one of its most visible components. However, it is important to understand that SCMI-IT encompasses eight other critical IT projects which are also essential for Service Center Modernization success.

All nine SCMI-IT projects must be pursued together in order for the Service Center Agencies to meet the goals of the SCMI. Any technical solution package aimed at bolstering Service Center program delivery capacities must address these nine core areas, otherwise there will be significant technological gaps which will impede service delivery and information sharing. The chart below identifies the nine projects, and is followed by individual project summaries.

Additional discussion about project inter-dependencies, risks, and priorities is covered in the section entitled **"How SCMI-IT Will Be Achieved."**



1. COMMON COMPUTING ENVIRONMENT PROJECT (CCE)

The Common Computing Environment (CCE) will provide a common architecture and shared information system for Service Centers. The CCE will support current and future program delivery and business needs, increase information and resource sharing capabilities between the Service Center Agencies, and maximize the program delivery, customer service and administrative efficiencies.

The technologies that the CCE will provide must address the full range of program delivery needs. This will include the technologies necessary to enable customers to come to the Agencies over the Internet and file applications for services electronically. CCE will also include the technologies needed by our workforce to go to the customer in the field who has no running water or electricity, much less Internet access.

Specific outcomes from the CCE Project include:

- CCE will equip and train Service Center staff to do their jobs with up-to-date, fully connected ***workstations, laptops, printers, and other tools*** such as digital cameras, scanners and Global Positioning System units.

- CCE will equip co-located Agency offices with much needed modern ***software tools*** (e.g., modern word processing and spreadsheet applications), which will enable employees to more easily share information between partner Agencies, and focus more of their time on delivering high quality customer service.

- CCE will provide employees with ***Internet access and email*** capabilities, which will enable them to share information more effectively with their customers, and deliver program services more quickly. As a result, employees will need to make fewer time-consuming trips to the field, and for some programs, customers will no longer need to visit a Service Center for every service they require.

- CCE infrastructure investment will allow customers to access program information and apply for program services over the Internet -- ***24 hours a day, 7 days a week.***

- CCE will provide employees with ***mobile computing tools*** needed to adequately serve customers with limited field office and Internet access.

CCE:
Better for USDA Customers

Amy has inherited her parents' farm that is located on the boundary of two counties in Iowa. The Service Center closest to her home in Montana cannot tell her anything about her farm, so she must fly to Iowa to visit the local Service Center.

She fills out forms and talks with FSA personnel, who tell her she also needs to speak with NRCS personnel. NRCS personnel ask her to fill out more forms and then inform her she needs to go through the same process in the next county because 20 acres of her farm are across the county line. Amy drives 50 miles to the next county to visit her third Service Center, and fills out two more sets of forms related to the 20 acres.

When CCE is completed, Amy will be able to receive detailed information on her farm at the Montana Service Center, and complete all required forms for all agencies at the same time.

- CCE will provide the technical infrastructure necessary for the use of ***Geographical Information Systems (GIS)*** in the Service Centers.

- ***Reduce costs*** associated with configuration management, deployment and installation of software and help desk support, by enabling software uploads and virus updates to be managed centrally for over *35,000 workstations*

These expected outcomes represent a major step forward for the Service Center Agencies. CCE will enable the USDA to overcome the major barriers of the past, including the regular use of three different word-processing and spreadsheet applications among the three partner Agencies.

2. ELECTRONIC ACCESS INITIATIVE (EAI)

Although many Service Center Agency customers are part of the "digital divide," there are a growing number who are using technology in their operations and would like to do business with USDA using modern, electronic means. The implementation of the Electronic Access Initiative (EAI) will enable the Service Centers to move beyond simple access to the Internet, to using the Internet as a means of doing business. EAI will develop and implement web farms, the technical architecture supporting web-oriented services, so that employees will be able to begin developing ways to leverage the full potential of the Internet and USDA Intranet for program delivery and customer service. EAI will also develop the policies, procedures, staffing models, and funding forecasts to achieve these goals.

The results of the EAI project include the following:

- The Agencies will be able to meet ***legislative mandates*** such as the Freedom to E-File Act and other laws
- Customers with Internet access will be able to obtain a wide range of information and services without having to drive long distances and wait in line at Service Centers. Instead, EAI will lay the foundation for ***Web-site use*** by Service Center employees so that they can serve their customers in more innovative ways.
- Customers will be given ***extensive Web information access*** for programs, electronic forms and applications, news flashes, feedback opportunities, and links to other federal programs. Secure Web farms will safeguard information assets and ensure data integrity.
- Employees will be able to access to ***electronic procurement and self-service transactions*** related to personnel benefits, administration, and online training.
- ***Information on Agencies that are not co-located*** will be available on the Web so that employees of an on-site Agency will be equipped to serve customers with partner Agency information.
- ***Contracting requirements and bid information*** will also be available to external partners and customers.

3. MIGRATION PLANNING PROJECT

The Migration Planning project covers the planning, coordination and conversion of the Partner Agency software to the CCE. The project will bridge the gap between the legacy systems and the new common computing systems so that Service Centers can continue conducting business while their IT infrastructure is being transformed by the other projects of the SCMI-IT. The specific tasks of the Migration project are detailed below:

- Ensure that, in the interim before full migration takes place, there is a working link between users already in the new computing environment and the data and applications they need from the legacy environment
- Migrate these applications and data from legacy systems into the new common computing environment (hardware and software)
- Support implementation of BPR/I projects
- Ensure the migration of Agency applications is business driven
- Train USDA IT staff and Service Center users previously working in the legacy environment in the new common computing environment

By completing these tasks of the Migration project, the Service Center Agencies will be able to do the following:

- Effectively manage the ***transition to new IT environment*** from managing three separate sets of assets with three separate sets of personnel, to managing one core set of shared technology (e.g., network and web servers) through the coordinated efforts of the IT personnel of the three Agencies
- Enable ***uninterrupted delivery of billions of dollars*** in benefits to customers and partners
- Secure ***significant labor hour savings*** by eliminating the need for employee time for the development and maintenance of redundant legacy applications

4. SECURITY PROJECT

The Security project is focused on protecting the privacy, integrity, accessibility, and reliability of Agency and customer information, and preventing unauthorized access to USDA systems and networks. The Security project is deeply intertwined with the other projects of the SCMI-IT. The Security team is leveraging communications and coordination opportunities provided by SCMI-IT's single, integrated, project management approach to ensure a close working relationship with each of the other eight teams.

A fully supported and implemented Security project will do the following:

- ***Secure public, customer, partner and employee confidence*** by ensuring that electronic information will not be subject to unauthorized modification, and that data is available only to those with legal access.
- ***Prevent malicious and unauthorized access*** to USDA and related information systems that might disrupt program delivery
- ***Meet all federal security mandates***, including those of the Computer Security Act of 1987, as amended
- Help the USDA, as a whole, to ***move its "F" grade to an "A"*** for information security ("F" given in September 2000 by the Congressional Subcommittee on Government Management, Information and Technology)

Security:
Protecting Sensitive Data

As global Internet use grows at a blistering pace, so does the abuse of the Web as a tool for attacking public and private sector organizations. In the US, nearly all areas of the federal government have been subjected to such attacks, including attacks that are initiated from foreign countries.

Of the electronic threats targeted at the USDA, the USDA Cyber-Security Officer estimates that: Approximately 70% of successful system intrusions into USDA have occurred in the networks of the county-based Service Center agencies.

The vulnerabilities of USDA Service Center IT networks have never been more apparent, and replacing old IT systems with more modern, securable systems is vital.

GIS:
Accelerating and Improving Service Delivery

The calculation of farm or ranch acreage is a common Service Center activity and can be a key factor in the delivery of many USDA programs and services. This is because the type and amount of services for which a producer is eligible is often based on the size and physical characteristics of their land. With GIS capabilities and applications, as well as hand-held Global Positioning System (GPS) devices available at Service Center pilot sites, these calculations will be automated, and can be completed for the customer with increased speed, accuracy, and reliability.

Employee feedback: "We plugged 470 points on a very complex measurement in 1.5 hours . . .. [It] would have taken 3-4 days with the traditional method."

5. GEOGRAPHICAL INFORMATION SYSTEMS PROJECT (GIS)

The GIS project will provide Service Centers with access to digital geo-spatial data, such as soils, common land unit, orthoimagery and demographics. GIS will also provide the necessary applications and tools to leverage this data for the benefit of Agency customers. GIS replaces an antiquated system of hard-copy aerial photographs, and a series of tedious, time-consuming, manual tasks required to provide customers with only a basic level of service. The new data and applications will significantly expand the depth of the USDA's service offerings and add significant value to customer, partner, and employee business endeavors.

As one FSA Service Center Agency director stated, ***"GIS and GPS is our future. It is the foundation for all [our] information sharing."***

GIS is also expected to accomplish the following:

- ***Secure $12-15 million*** in annual benefits from implementation of Toolkit, a suite of custom GIS tools that enable geospatial data to be analyzed for conservation planning using commercial software
- ***Save $169 million*** in total annual costs (per FY1998 SC Business Case)
- ***Provide labor savings of 80-85%*** for many routine tasks, and significant improvements in employee productivity as time-consuming, manual processes are automated
- ***Reduce Agency costs*** by providing more complete, accurate and timely GIS information, which will be used in determining program compliance to combat waste, fraud and abuse
- ***Eliminate paper processes*** thereby reduce the cost of data acquisition and maintenance
- ***Provide higher quality products***, such as digitized maps instead of manually marked-up photos, while leveraging benefits of the $118 million investment already made in GIS data (orthoimagery and soil survey data)

GIS and GPS:
A Leap in Service Enhancement

A customer in Kansas mistakenly cleared trees from wetlands within his 160-acre property in the process of making more room for his crops. The resulting wetland violation made the customer ineligible for continued USDA programs and benefits. Since USDA assistance was critical to the viability of his operations, the customer asked his local Service Center for help in restoring the wetlands and regaining his eligibility.

In order to comply with USDA guidelines, he asked a Service Center to help him plot the locations of the previously cleared trees so that he could replace them with new plantings. To support this request, our team used one of the pilot Global Positioning System (GPS) devices in conjunction with previously captured ortho-imagery to mark the field with the locations of the previous trees.
What would have previously taken 18 hours, was accomplished much more accurately – and in only 5 hours.

6. TELECOMMUNICATIONS STRATEGY PROJECT

The Telecommunications Strategy project plays the pivotal role of designing and managing the growth of Service Center telecommunications infrastructure so that current and future IT-based program delivery requirements will be met. This includes the requirements of the Service Centers business operations and of the other eight SCMI-IT projects. The project is focused on managing the telecommunications capacity of the USDA's networks, i.e., regulating and planning for the amount of electronic traffic that can be routed through a given communications "pipe" at any one time. This project differs from the LAN/WAN/Voice project that focuses on the installation and operation of communications infrastructure, as opposed to long-range planning.

The demand for greater telecommunications capacity, or bandwidth, has skyrocketed as business applications with tremendous benefits, customer access needs, and legislative requirements (e.g., Freedom to E-File) rapidly evolve. The Service Centers' existing bandwidth is not sufficient to meet these demands, but the Telecommunications Strategy project's efforts to increase network capacity and speed will do the following:

- Enable the Agencies to meet growing customer demand for ***rapid, reliable and secure information access*** -- 24 hours a day, 7 days a week
- Enable ***increased information sharing*** between the USDA, and its customers and partners
- Allow the Agencies to meet current and future requirements and deadlines of ***E-government legislation***
- Provide the Agencies with a trafficking, modeling and forecasting service
- Provide the Agencies with a proactive performance monitoring service.

- Provide the Agencies with ***significant cost-savings*** by planning for the hardware, software and circuit bandwidths that will support minimal system downtime.
- Avoid any ***program disruptions*** that might occur because of "clogged" telecommunications systems

7. LAN/WAN/VOICE PROJECT (LWV)

The focus of the LAN/WAN Voice project is the installation and operation of a common, nationwide Service Center data and voice communications infrastructure that enables the USDA to continue delivering programs and services to their customers in a prompt and responsive manner. Prior to 1995 there were minimal capabilities for sharing telecommunications systems between Agencies. The depth of the problem reached to the lowest levels of the organization -- to the extent that partner Agencies could not transfer telephone calls to one another -- even at co-located offices. However**, *2,522 of the 2,600 Service Centers*** have received LAN/WAN, and Voice communications systems as of September 2000, with additional 49 locations slated for FY2001.

The continued implementation of the LAN/WAN/Voice project will result in the following:

- ***Cost savings*** as the number of communications lines into offices are reduced
- ***Reduced acquisition and maintenance costs*** as common technologies are shared across the Service Center Agencies
- A ***solid telecommunications infrastructure foundation*** for the CCE, EAI, GIS, Migration, and Data Management projects by enabling shared email, Intranet and Internet access, and, improving the speed of data access

8. DATA MANAGEMENT PROJECT

The Data Management project is responsible for reengineering the way all Service Center data is managed, and ensuring compliance with prescribed physical database standards. In doing so the Data Management team is ensuring that USDA data can flow easily through the organization, be quickly found, be protected, and ultimately be of maximum value to the people who use it.

The Data Management project has already completed several pilot projects, and is well into the development of the Service Center Agency data management master plan. The project team is working to create coordinated data warehouses based on common rules, definitions and technologies. The purpose of this activity is to ensure that data can be effectively shared among Agencies, customers, and partners as appropriate. The Data Management project will benefit customer, employee and partner needs through the following:

- ***Improving access to data*** at all levels of the organization and among partner Agencies
- ***Publish*** the existence of collective data to a wider business audience
- ***Promoting data sharing*** among business areas and information systems, thereby reducing duplication in data collection efforts

Data Management:
Improving Service Center Capabilities

A Governor's office asked a Service Center Agency if it could produce a report to help the State Disaster Management Agency locate farms where prior natural disasters have required government assistance.

However, this type of report required a cross-referenced data from a Service Center disaster database and a housing loan service database. Since the Service Center Agency could not access the necessary RD databases, IT managers would have had to write custom programs, extract the necessary data and then consolidate the data to create the report. The agency informed the Governor's office that the request would require at least 3 months, to which the reply was "thanks, but don't bother."

After SCMI-IT is completed, the latest data would be available instantly and simultaneously to both FSA and RD employees, and could be extracted for custom reports the same day.

- ***Facilitating common definitions*** of data for national applications among business areas, Agencies, and across several levels of the organization

9. INTEROPERABILITY LABORATORY (IO LAB)

The role of the Interoperability Laboratory (IO Lab) is to create an off-line Service Center IT environment that utilizes modeling and simulation software to test the compatibility, compliance, and security of proposed IT solutions *before* they are deployed into the field. It is critical that the many hardware, software, and communications solutions introduced into the Service Center environment are not only compatible with one another, but are also compliant with established criteria and standards. The IO Lab is responsible for developing these criteria and standards, monitoring compliance, providing training, and providing technical assistance.

The rigorous planning and testing applied by the IO Lab in advance of IT deployments – such as testing all legacy systems to ensure proper functionality within the CCE environment – is critical to the successful deployment of the SCMI-IT. The IO Lab project will also accomplish the following:

- ***Ensure uninterrupted service to customers*** by testing the sufficiency of Service Center computing capacity for new applications

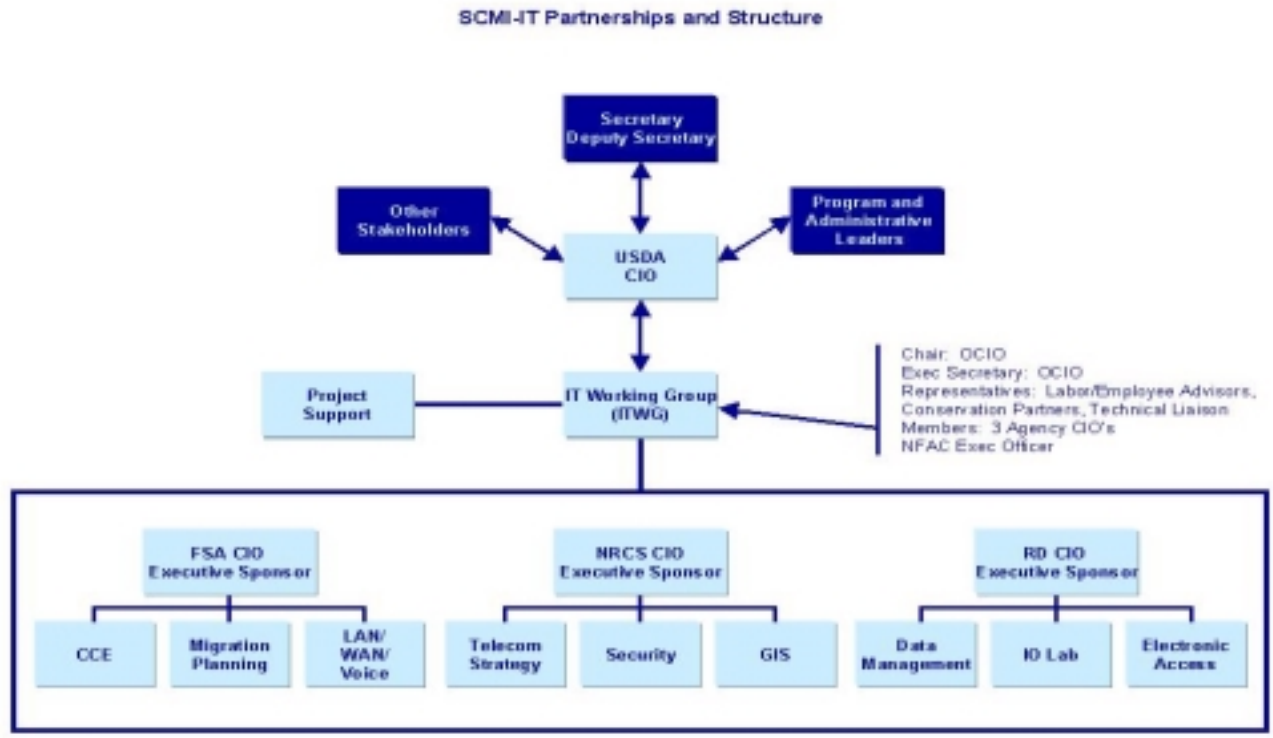
- ***Minimize potential difficulties*** Service Center employees may face during an IT deployment

- ***Promote enterprise-wide approach to sharing data*** across Agencies, which enables Service Center IT staff of partner Agencies to support and assist one another more easily

- ***Ensure availability of sufficient computing capacity*** essential for execution of program delivery for the partner agencies mission areas.

ESTABLISHING PARTNERSHIPS AND STRUCTURE

IT activities are coordinated through the ***Information Technology Working Group (ITWG)*** under the general direction of the ***USDA CIO*** who collaborates closely with ***program and administrative leaders of the Service Center Agencies***. The ITWG structure includes the CIO's of the three Agencies, who are each charged with executive leadership for three of the nine project teams. The ITWG also includes the team leaders of the nine projects, employee organization representation, and partner representation. The Executive Director of the ***National Food and Agriculture Council*** represents the BPR/I program interests. A senior executive from the OCIO chairs the ITWG. Agency program leadership is involved in setting priorities and directives for the effort, and the IT organization of the three Agencies are fully involved with providing the internal leadership and staff for the effort.



Under the ITWG, the nine project team leaders have been ***collaborating to integrate individual project plans*** and tasks, including activities, budget allocations, and staffing levels. The OCIO holds a weekly ITWG coordinating meeting for all CIO's and project teams members. The OCIO also sponsors quarterly ITWG planning meetings to discuss project challenges and to further integrate their respective IT transformation efforts. These meetings also include employee unions and associations, and conservation partners.

CREATING A COMMON FRAMEWORK

In September 2000, SCMI-IT increased collaboration in an intensive, week long Service Center IT Modernization planning conference. Participants included the USDA CIO and Deputy CIO, the OCIO project managers, the Agency CIO's, team leaders from within the Agencies, state and local stakeholders, and union representatives. The planning conference leveraged progress achieved in prior planning conferences, including a series of meetings held in July 2000. The conference also included technical and project planning sessions, as well as activities designed to promote the team building and effective communications imperative for an effort of this magnitude.

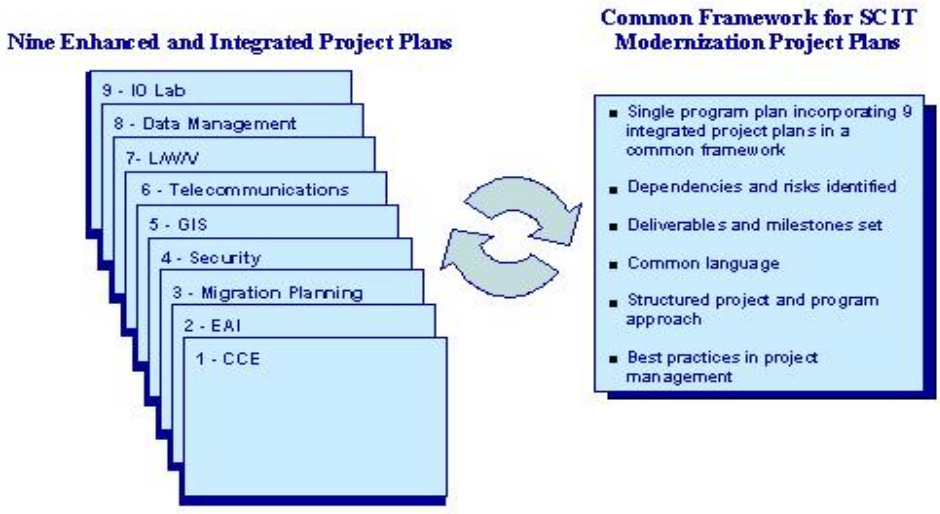
Initially, the leaders of the Modernization effort had been faced with nine project teams, each with unique methods and approaches to project planning. At the program level, a common frame of reference was needed to pull them all together, establish clear priorities, and advance the Service Center Agencies' overarching IT and business goals. Likewise, the OCIO and other managers needed to more clearly understand the implications of individual project activities and to monitor critical inter-dependencies and risks.

In order to accomplish this, the OCIO initiated the facilitated conference in September 2000 that introduced a common IT project management methodology and tool to the planning process. Using the common framework, the ITWG engaged in two major processes:

- *Strengthening and updating the individual project plans of the nine teams*
- *Consolidating the nine project plans into a single integrated program management plan*

As a result, the ITWG significantly enhanced its nine project plans and successfully integrated these under a common framework which equips the ITWG to comprehensively monitor all IT Modernization activities.

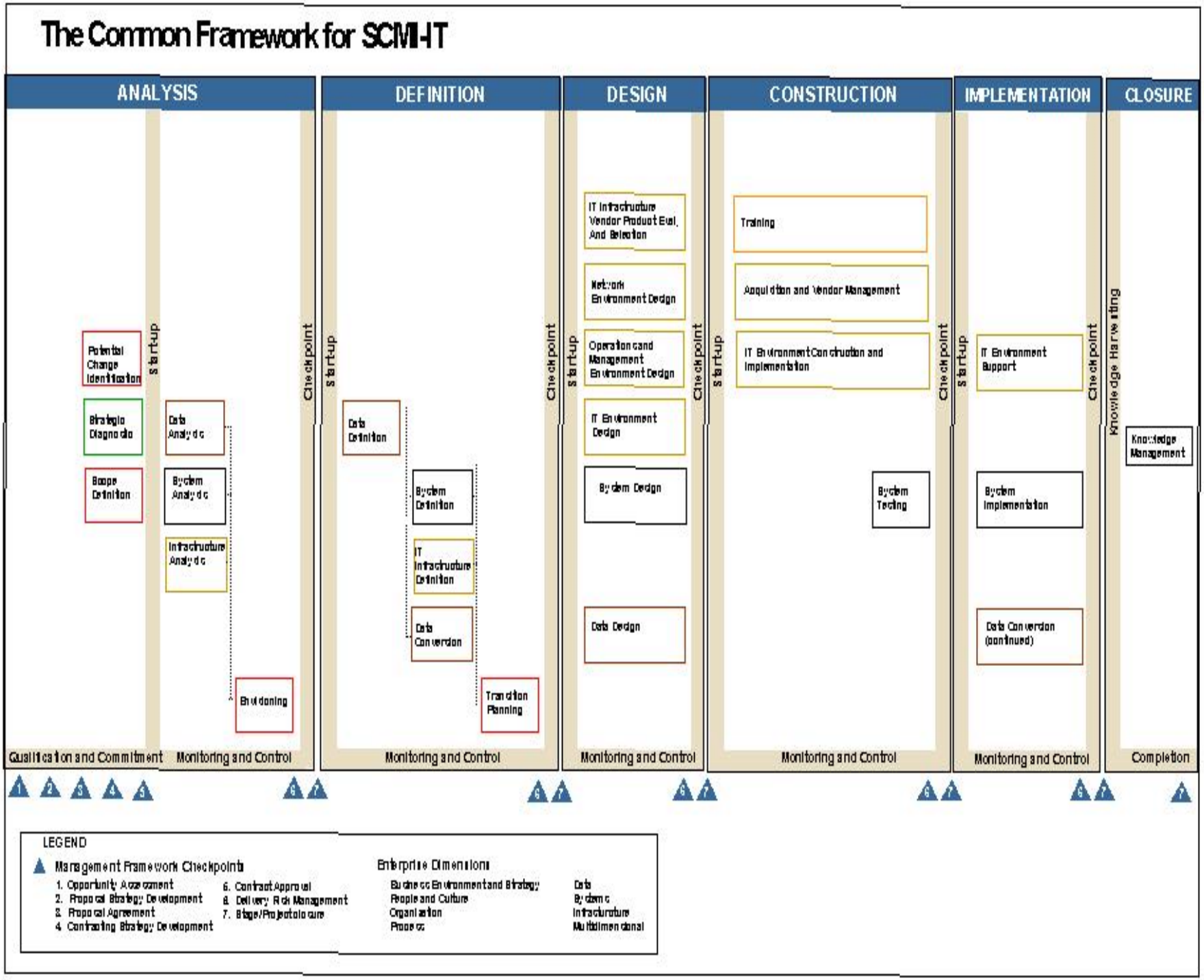
RESULTS OF SC IT MODERNIZATION PLANNING



The common framework provides planners and managers with the following benefits:

- It gives team leaders the opportunity to use a ***shared language and common terminology*** in project plans, deliverables and other communications.
- It provides team leaders with a reference to a ***well-structured approach*** to an information system development life cycle and offers detailed work descriptions.
- It focuses on ***deliverables and milestones***.
- It presents ***lists of deliverables appropriate to specific stages*** within a project life cycle, a list from which teams can customize deliverables to their specific needs.
- It highlights ***dependencies and risks*** to be managed to improve chances of project success.
- It illuminates ***tasks*** that may have been omitted due to lack of time or budget resources.
- It promotes ***project management best practices*** consistent with those learned by thousands of professionals in hundreds of large-scale IT projects over the last thirty years.

A snapshot of the common framework produced by the ITWG follows this page, and shows its phases and activities at a high level.


The Common Framework for SCMI-IT
ANALYSIS
DEFINITION
DESIGN
CONSTRUCTION
IMPLEMENTATION
CLOSURE
Potential Change Identification
Strategic Diagnostic
Scope Definition
start-up
Data Analysis
System Analysis
Infrastructure Analysis
End-loading
Checkpoint
Data Definition
System Definition
IT Infrastructure Definition
Data Conversion
Transition Planning
IT Infrastructure Vendor Product Eval. And Selection
Network Environment Design
Operation and Management Environment Design
IT Environment Design
System Design
Data Design
Training
Acquisition and Vendor Management
IT Environment Construction and Implementation
System Testing
IT Environment Support
System Implementation
Data Conversion (continued)
Knowledge Harvesting
Knowledge Management
Qualification and Commitment
Monitoring and Control
Completion
LEGEND
Management Framework Checkpoints
1. Opportunity Assessment
2. Proposal Strategy Development
3. Proposal Agreement
4. Contracting Strategy Development
5. Contract Approval
6. Delivery Risk Management
7. Stage/Project closure
Enterprise Dimensions
Business Environment and Strategy
People and Culture
Organization
Process
Data
Systems
Infrastructure
Multidimensional

MANAGING RISKS

No project is free of risks – especially an IT project the size of SCMI-IT. However, by identifying risks and assigning "risk owners" to develop contingency plans for these risks, team leaders can help keep their projects on schedule and budget. When a project risk is successfully managed, an adequate number of project resources can be committed to the resolution of the potential risk before it becomes a major issue.

Whenever there is a need to coordinate projects across different business units in separate locations, there is always a great ***risk of disconnects and miscommunication***. Managing this risk is one of the critical reasons all nine project teams are brought together for regular planning conferences – to establish a single team, unified around priorities that will successfully deliver SCMI-IT to the USDA and to the nation.

Implementation activities must also be handled in a manner that minimizes the ***risk of disruption*** to Service Center operations. In support of this, many project teams include members of Service Center operations staff. This is critical - these employees are most familiar with the challenges involved in Service Center operations, and are best positioned to heighten the project team's awareness of Service Center needs.

There are several other key risk areas which the SCMI-IT effort must manage closely:

- ***Training***
  Employees strive to keep their IT skills current, and this is critical to the future success of the Service Center programs. SCMI-IT provides employees the opportunity to continue developing their skills in an advanced technical environment. For this reason, Agencies working with employee groups and unions, will design and conduct training to enhance these skills and to directly support the modernization program.

- ***Coordinating Activities***
  Dedicating the resources necessary to make interagency cooperation and coordination a continuing reality will be imperative for success. IT Modernization is a complex undertaking. In order to deliver significant benefits through nine separate but inter-dependent projects to thousands of locations across the country, the three Agencies must coordinate together very closely.

- ***Funding Stream***
  Changes to the funding stream have a major impact on the ability to modernize IT in two major ways. First, if higher-priority projects are left under-funded, such shortfalls are often compensated for by taking dollars from lower-priority projects. This can result in reductions in project or program scope, and ultimately, no capacity to deliver the overall benefits that were intended. Second, such shortfalls can also lead to significantly weakened or incapacitated high-priority projects since their ultimate success may still be heavily dependent on lower-priority projects which then go un-implemented. Inter-dependencies must be tracked and managed in order to raise these concerns accordingly.

- ***Scope Creep***
  Changing business and legislative requirements can easily threaten the scope and impact of technology modernization projects. Unexpected or unmanaged changes to project requirements generally result in implementation delays which may negatively impact overall program goals.

- ***Unforeseen Demand***
  One clear measure of program success can be an increased demand for the services that the project delivers. However, if not properly planned for in advance, these increased demands might consume resources originally assigned to other project tasks.

- ***Program Changes***
  In programs of this scope and scale, resources are invariably stretched to meet even ordinary program and project goals. The added strain and stress of major legislated program changes can profoundly affect schedules and outcomes by unexpectedly diverting critical resources.

- ***Security Demands***
  Increased attention to information and system security demands that security concerns be addressed at all stages of the IT modernization life cycle. Failure to do so in a structured, beginning-to-end manner puts sensitive information at risk of disclosure or unauthorized alterations, puts systems at risk of abuse or failure, and thereby affects program delivery

MANAGING DEPENDENCIES

Dependencies describe how individual project components supporting SCMI-IT are interconnected. By understanding these dependencies, program and project managers can be alert to the progress of the other teams, and understand how their efforts contribute to the success of the managers own efforts. As detailed planning continues through the ITWG, the teams are creating a formal record of the *inter-dependencies* associated with each project component. They then verify that these inter-dependencies are being appropriately addressed and managed at each stage of the project.

The inter-dependencies of each project component also have specific risks associated with them. Identifying these risks helps the team understand how the implementation of project component "A" impacts project component "B". Such planning and risk management also helps the team to further prioritize the implementation of project components according to which will deliver the greatest benefits, and which are most critical to overall program success. As this network of inter-dependencies continues to be examined, critical path priorities are uncovered and the team finalizes the overall project schedule.

Key inter-dependencies among the nine projects are detailed below.

- ***Stakeholder Support***
  Stakeholders who understand, value and support the SCMI-IT will help ease many of the potential difficulties associated with the deployment of such a large scale program.

- ***Funding***
  The project teams design their projects with flexibility in order to respond to changing funding levels. However, below certain funding levels some projects will simply not be able to address a large enough portion of the task to be effective. Unfortunately, these projects may be shelved in favor of smaller-impact, lower-cost alternatives, which are not able to deliver the overall modernization benefits required for high payback improvements.

- ***Managing Configurations***
  Carefully maintaining the configuration of information systems from the beginning enables the organization to experience fewer technical surprises down the road. The success of the project teams relies on following a structured configuration management process. Well-managed configurations also help reduce the costs of system maintenance, especially in the case of SCMI-IT where systems are to be implemented at thousands of Service Centers across the country.

- ***Staff Resources***
  This IT modernization effort requires a sufficient number of skilled government IT professionals to manage projects, and when appropriate, contractors, to help ensure an effective level of cooperation and coordination between project teams. SCMI-IT plans include equipping IT professionals with the skills necessary to support a successful IT modernization program.

- ***Managing Requirements***
  Well-defined program requirements present a clear and concise description of the systems and infrastructure to be built. The success of the individual projects – and the IT modernization effort as a whole – will depend upon a consistently managed set of requirements.

ESTABLISHING PRIORITY ACTIVITIES

A key outcome of all the IT planning activities described, is that SCMI-IT can now identify, update and convey the overall technology modernization priorities. These priorities and their corresponding timeframes are discussed in the **"Expected SCM-IT Costs"** section.

BENEFITS OF MODERNIZING SERVICE CENTER INFORMATION TECHNOLOGY

ECONOMIC BENEFITS

In addition to the Service Center Agencies, the Department, federal government and general public also benefit from the ability of SCMI-IT to more efficiently steward taxpayer resources. The USDA recognizes its accountability to the Congress and general public, and has conducted the necessary research to ensure that SCMI-IT makes sound ***economic sense***.

The SCMI Business Case developed in early FY1998 provided an economic analysis of the costs and benefits associated with the implementation of the initiative, including the re-engineered/improved business processes. The following return on investment and dollar value benefit estimates from the business case have been validated by actual measurement of increased process efficiencies at pilot sites in the field. In fact, pilot site results indicate that these estimates are probably conservative.

CCE:
Enabling Faster,
More Profitable Sales

One SCMI-IT pilot site reported that using the new CCE equipment enabled them to "broadcast" better information on sales of foreclosed homes to a wider group of bidders.

As a result, houses are selling more quickly and average sales prices are up by $25,000.

- ***40% annual return on investment*** over the 10-year life span of the program
- ***$5.5 billion in calculated dollar value benefits*** from labor hours saved and improved operational efficiencies
- ***$773 million in dollar value savings to customers*** from faster payments, reduced travel costs, reduced time in making applications for programs, and improved access to information

It is important to note that since the business case projections were completed in 1997, the Service Center Agencies have lost an additional 1,000 staff years and program levels have doubled, thereby putting a serious strain on Service Center operations. The enabling technology and streamlined processes of SCMI-IT are the only way a reduced and under-researched staff can continue to deliver quality customer service and manage cyclical workload demands, apart from adding significant staff resources. Actual benefits will also depend upon resource availability to change business processes to take full advantage of technology.

PROGRAM DELIVERY AND CUSTOMER SERVICE BENEFITS

In terms of higher quality program delivery, SCMI-IT will equip the USDA's Service Center Agencies with the ability to ***share customer, program, technical and administrative information***, regardless of the Agency that they represent. Also, the enhanced functionality and flexibility of newly designed processes and systems means that Agencies will be able to ***adjust more quickly to changing business, legislative and policy requirements***. Overall efficiency of program delivery will make substantial advances, particularly in areas related to GIS which will take a leap forward in speed, accuracy and labor savings to both customers and employees.

Customer service quality and satisfaction will also be significantly enhanced, as employees are able to spend less time wrestling with manual, paper-based tasks. In addition, as more information is made accessible on the web, employees will also be released from responding to many basic inquiries, in order to give attention to the more complex issues facing their customers and to the needs of the under-served. Customers will no longer have to provide redundant information for every new program for which they apply. The will also be assured that the information they provide will be protected and available only to those who need it. Additionally, customers will be able to eliminate trips to the office, use GIS data from the Service Centers for precision farming, and receive payments faster.

EAI: Saving Time and Fulfilling E-File Act

SCMI-IT's Electronic Access Initiative (EAI) project is enabling USDA Freedom to E-File Act compliance and saving time for customers and employees as lengthy trips for Service Center visits are avoided.

EAI's common Internet Web site will satisfy the initial web access requirements by giving customers the ability to download forms needed to participate in USDA programs (e.g., loan pre-qualification forms). Initially, over 200 "fill-able" forms have been identified for this purpose - these are forms that can be easily completed with only the instructions on the form, and they represent a cross-section of the entire universe of forms across the three agencies.

EAI has also designed the project plans for satisfying the law's 2002 requirements to receive customer data transmissions. Customers will then be able to, for example, not only download a loan qualification form, but complete it, return it, and learn of the decision, all on-line.

PRODUCTIVITY AND OPERATIONS BENEFITS

Modernizing the Service Center IT environment will also significantly improve the ***employee productivity***. By working with a common set of tools across a common computing environment, Service Center employees will be able to deliver USDA programs and services to their customers more efficiently and effectively than ever before. Common, secure Internet access, e-mail, office automation software, information sharing capabilities, telecommunications, and business applications will make a major difference. Access to these capabilities and technologies will also - 1) provide Service Center employees with a greater sense of control amidst steadily increasing workloads, 2) eliminate the need to support multiple versions of software for incompatible computers, and 3) enable sharing of IT staff and staff knowledge at and between different Service Center locations.

Examples of projected reductions in staff time required to carry out key activities include the following:

Process	Time Savings*
▪ *Explaining programs*	***57%***
▪ *Determining eligibility*	***70%***
▪ *Developing conservation plans*	***39%***
▪ *Developing contracts*	***29%***
▪ *Issuing payments*	***58%***
▪ *Manipulating geographic data*	***75%***
▪ *Conducting damage assessments*	***90%***

** Source: FY1998 Business Case, completed in October 1997*

With regard to overall ***Service Center operations***, the IT modernization plan releases the three Agencies from the burden of maintaining three incompatible infrastructures of outdated networks and systems. SCMI-IT will also allow the Agencies to effectively manage higher levels of service demand in the face of reduced staff, operations resources and budget dollars. Likewise, the Agencies will be able to better attract and retain skilled IT employees by offering an advanced IT environment with skill building opportunities on current technology.

LEGISLATIVE BENEFITS

SCMI-IT also helps the Agencies fulfill responsibilities in meeting legislative mandates. In recent years, budget constraints and the demand for greater accountability have resulted in a number laws and directives which require compliance by Federal departments and agencies. The legislation detailed below represent the major mandates that the Service Center Agencies must fulfill.

- The Agencies' preparations to fulfill the requirements of the ***Freedom to E-File Act of 2000*** are well underway. The Act requires FSA, NRCS and RD to provide a basic set of specified Internet access services by December 18, 2000, including a common Web-site which is slated to be in place accordingly. The Act also requires an enhanced set of Web-based services by June 20, 2002 to support the submission of data by customers. SCMI-IT will enable the Agencies to fulfill this obligation, specifically through the combined efforts of at least the following eight projects: Electronic Access Initiative, Security, Telecommunications Strategy, LAN/WAN/Voice, Data Management, Interoperability Laboratory, Common Computing Environment and Migration Planning.

- The USDA's initial planning for the ***Government Paperwork Elimination Act (GPEA) of 1998*** was submitted, as required by OMB guidance, in October 2000. According to the law, appropriate business processes should be moved to a self-service, Web-enabled platform by October 2003. Together, all nine SCMI-IT projects will enable the Service Center Agencies to deliver broader Web-based service offerings and to meet GPEA paperwork elimination goals in conjunction with related SCMI BPR/I efforts.

- The ***Clinger-Cohen Information Technology Management Reform Act of 1996*** requires that capabilities for obtaining timely information on the progress of IT investments be in place, and that a system of milestones for independently measuring progress on cost, quality, schedule, and system capabilities be established. The integrated project plans and common framework developed for the nine SCMI-IT projects directly address the risk and investment management and reporting concerns of this Act. Likewise, SCMI-IT is fundamentally aligned with the Act's goal of maximizing the value of IT acquisitions to improve program efficiency and effectiveness.

- The ***Department of Agriculture Reorganization Act of 1994*** is also fundamentally supported by SCMI-IT, which meets the Act's goals to procure and leverage IT in a manner that enhances efficiency, productivity, customer service and information sharing between the Service Center Agencies.

EXPECTED SCMI-IT COSTS

COST OF MODERNIZING SERVICE CENTER IT

Based on the priority activities established through the planning process, the costs were identified for the IT Modernization effort over the FY1996–2002 implementation period. For context, in the cost listing below it is important to note that the "CCE" and "Telecommunications and LAN/WAN/Voice" items are budget categories, not exclusive references to particular project teams. Both items support and involve elements from the other project teams given the inter-dependence required for Modernization success.

(All dollar figures are in MILLIONS)

CATEGORY	FY 1996-2000	FY 2001 (est.)	FY 2002 (est.)	Total FY 1996-2002
Telecommunications and LAN/WAN/Voice	$128.0	$9.2	$25.0	$162.2
CCE Capital Investments	$103.7	$69.3	$82.9	$255.9
Other: Architecture, Data Mgmt., Security, Training, Support	$25.7	$12.0	$15.1	$52.8
TOTAL	$257.4	$90.5	$123.0	$470.9

The above includes: planning, capital costs, testing and training costs, but does not include personnel, data, operations and BPR/I costs. Reference to FY2002 estimates indicate remaining investment needs beyond FY2001 and does not necessarily represent a budget request for that year

CCE CAPITAL INVESTMENT COSTS

The total capital acquisition costs of CCE hardware and software are detailed by component in the chart below:

(All dollar figures are in MILLIONS)

CCE CAPITAL INVESTMENT COMPONENTS	FY 1996-2000	FY 2001 (est.)	FY 2002 (est.)	Total FY 1996-2002
Workstations	$65.1	$15.0	--	$80.1
Network Servers/ Related Software	$2.8	$47.2	--	$50.0
Electronic Access Infrastructure	$1.3	$2.7	$2.7	$6.7
FSA Legacy System Connectivity	$23.3	--	--	$23.3
Application Hardware and Software	$0.7	--	$34.0	$34.7
Enterprise GIS Software	$2.2	--	$10.0	$12.2
Peripherals and Printers	$8.3	$4.4	$36.2	$48.9
TOTAL	$103.7	$69.3	$82.9	$255.9

FY 2002 referenced to show remaining funding needs beyond FY 2001, and is not necessarily a budget year request

PRIORITY ACTIVITIES

To date, the Service Center Agencies have been implementing portions of SCMI-IT as funding becomes available, both through ongoing Agency budgets and other available funds. Initially, the LAN/WAN/Voice and Telecommunications projects were targeted for early investment since they were needed to replace the separate telephone systems of the Agencies, to wire the offices for computer network installation, and to provide limited wide area network capabilities via dial-up modems. With this telecommunications foundation in place, SCMI-IT began replacing outdated equipment with state-of-the-art workstations that used common office automation software compatible with the systems of customers and partners. In addition, 7,500 shareable printers and a limited number of GPS units and digital cameras were also provided. In late FY2000, legacy system servers for FSA were acquired and these, along with network servers, are being deployed in FY2001.

Now that early business process reengineering/improvement projects are ready to be deployed, and Agencies are shifting to web-based applications and responding to "Freedom to E-file" legislation, the SCMI-IT is moving to acquire and deploy the network and application servers needed to support GIS, e-business, and other activities. Congressional appropriations of special CCE funding to the OCIO along with Agency funds will now be available to support an orderly rollout of these new tools.

The priorities for the remaining two years of SCMI-IT implementation are as follows:

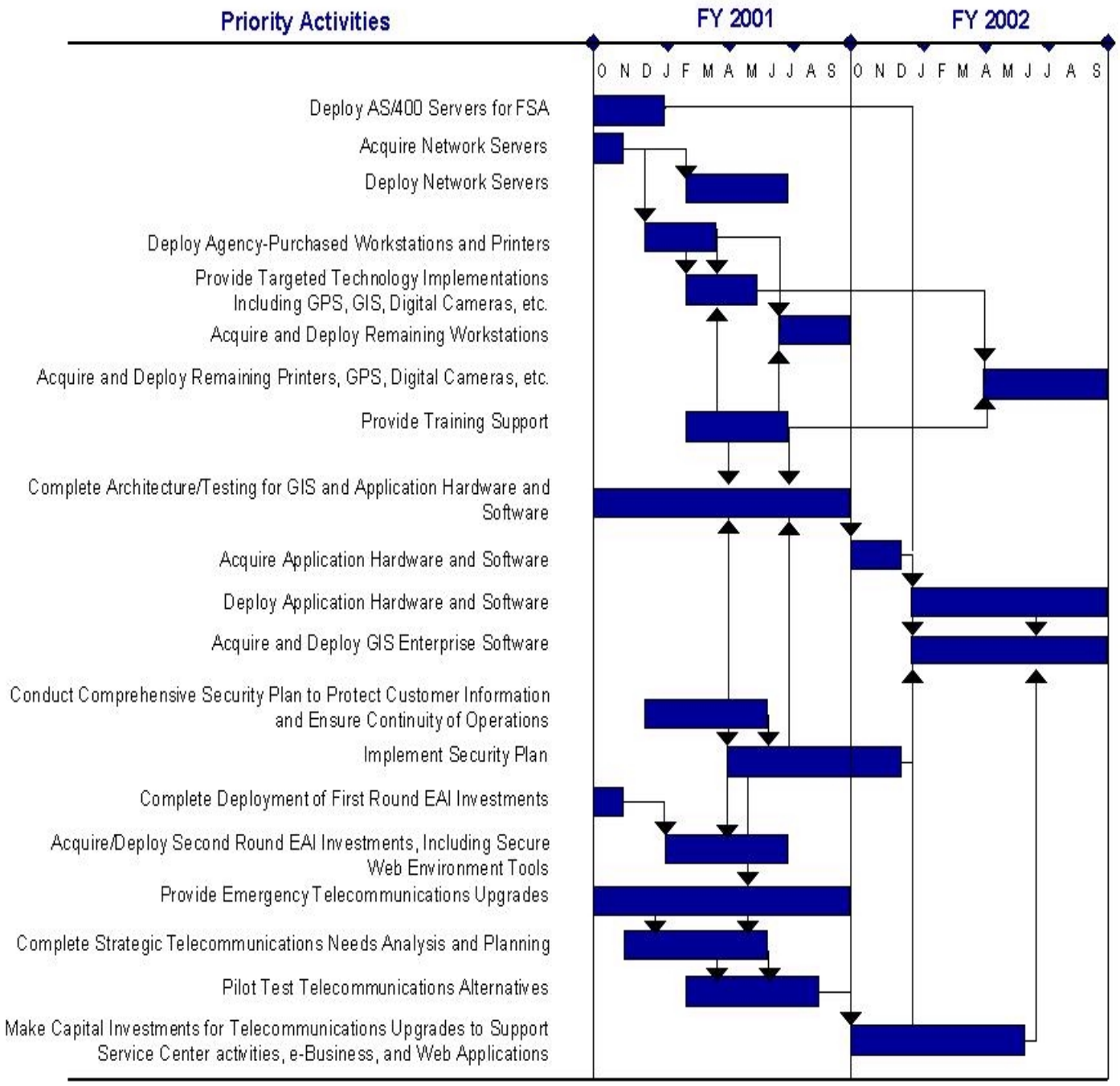
FY2001

- Deploy ***AS 400 servers*** to FSA to ensure connectivity to legacy systems and provide a basis for program application migration
- Acquire and deploy ***shared network servers*** in all offices to enable enterprise-wide information sharing, common email, and remote management of workstations
- Deploy initial ***Electronic Access Initiative (EAI)*** investments, and fund a second round of investments needed to provide a secure web environment to support e-government
- Deploy Agency-purchased ***workstations and printers***, and purchase and deploy remaining workstations
- Complete ***telecommunications strategy*** needs analysis, develop plans, and pilot-test improvements to the telecommunications infrastructure
- Support ***targeted implementations*** of selected technologies (GIS, GPS, digital cameras, etc.)
- Complete technical architecture and testing of ***GIS and application hardware design and related software***
- Conduct comprehensive ***information and systems security*** analysis and develop and implement a plan to protect continuity of operations, and privacy of customer information
- Provide necessary ***systems and end-user training*** to support the FY2001 initiatives above

FY2002

- Make the capital investments necessary to upgrade telecommunications system capabilities, and to support ***e-business and web applications***
- Acquire and deploy ***application hardware and software*** nationwide; acquire and deploy enterprise-wide ***GIS software***
- Acquire and deploy remaining ***peripherals and printers*** to complete the CCE deployment nationwide
- Provide comprehensive ***end-user training*** to support the FY2002 initiatives listed above

The following chart depicts the estimated timeframes for the above technology improvements. The chart also provides a high-level illustration of the complex interdependencies between the nine SCMI-IT project teams, and of why careful budget and task planning will be critical to success.



THE NEED FOR CONTINUED IMPROVEMENTS

As highlighted throughout this document, the need to modernize the IT capabilities of USDA Service Centers is both compelling and extensive. Delays or disruptions in the funding or execution of improvements to Service Center IT capabilities will expose the USDA to the following risks:

- *Increasing security vulnerabilities, since 70% of cyber-attacks occur through out-dated Service Center systems; possible subsequent loss in customer, partner and employee confidence in the ability of the Service Center Agencies to assure privacy of information*

- *A loss of program delivery capability due to continued high workloads coupled with insufficient staff and archaic work tools, all of which impact quality service delivery, as well as recruitment, retention, and training issues*

- *A less effective role in supporting the nation's agricultural policy related to rapid technological advances, if USDA employees are not familiar or equipped with the current technology in their professional occupations*

- *Failure to reap the IT-dependent benefits of co-location, BPR/I and administrative efficiencies; possible subsequent inability to comply with legislative mandates*

- *Insufficient telecommunications capacity to meet existing program delivery demands, "e-government" and "e-file" requirements, and increasing customer expectations, or to effectively enable employees to do their jobs.*

If the Service Center Agencies are to maintain the current level of program delivery, and achieve improvements in the future, it will be critical to implement IT Modernization quickly and comprehensively. The launching point for a significant transformation has already been established through early successes and sound project management approaches of SCMI-IT. The benefits being realized from the initial implementations of CCE (e.g., Internet, email and office productivity software) and GIS (e.g., GPS and digitized mapping) are just beginning to revolutionize Service Center program delivery and productivity. Field personnel with access to the new tools are now reengineering the way they work, and as nationally managed BPR/I projects roll out into the newly equipped IT environment, dramatic improvements in efficiencies and services will result.

The Agency leadership, the CIO, and the Information Technology Working Group have the partnerships, teams, integrated project plans, and common management framework needed to move IT Modernization forward. With the continued support of the Service Center Agencies, the Administration, and the Congress, SCMI-IT is poised to successfully enable the delivery of higher quality, more timely, and more efficient service to the customers of the Service Center Agencies.